INDUSTRIAL DEVELOPMENT: HOW THREE ROADS SEEK OUT NEW INDUSTRY

August 30, 1971

RAILWAY AGE

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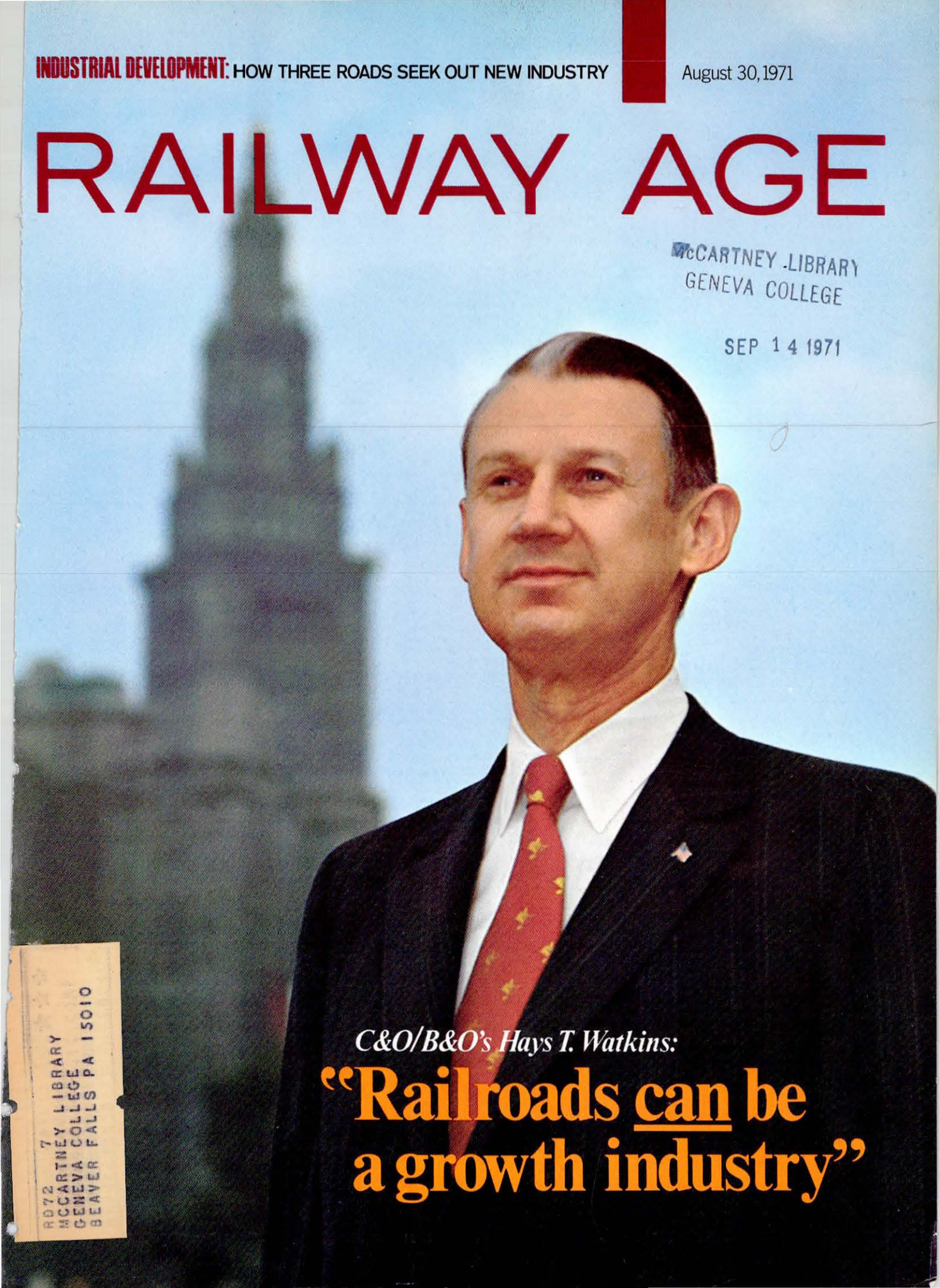

C&O/B&O's Hays T. Watkins:

"Railroads can be a growth industry"

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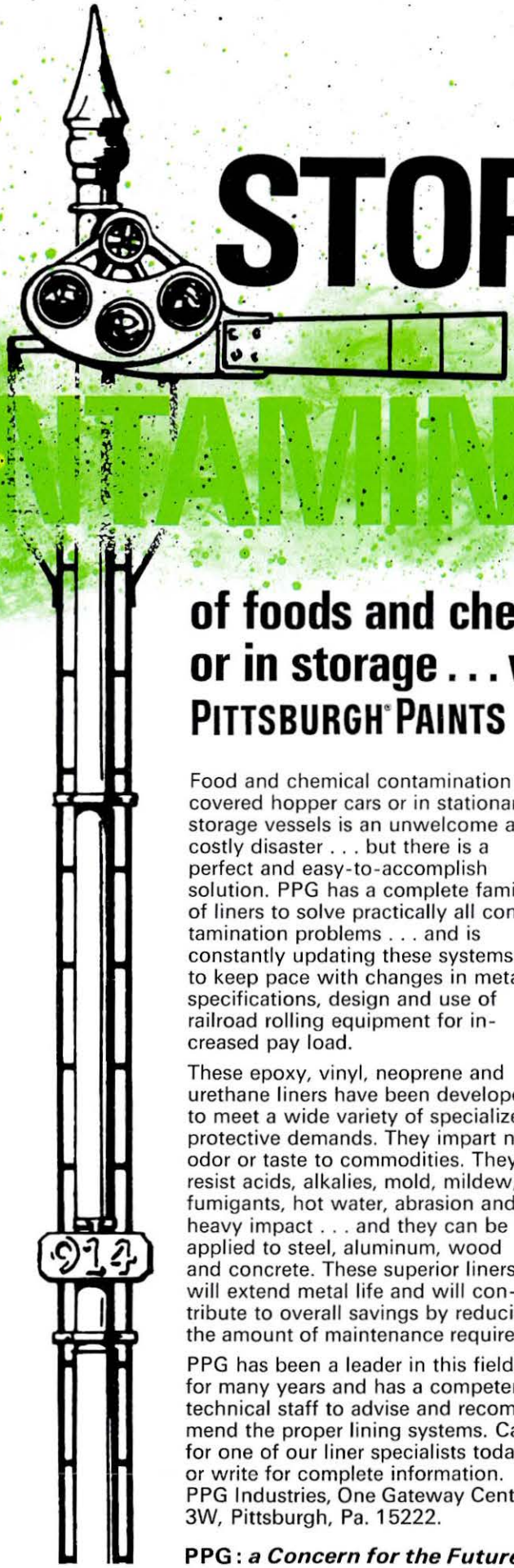

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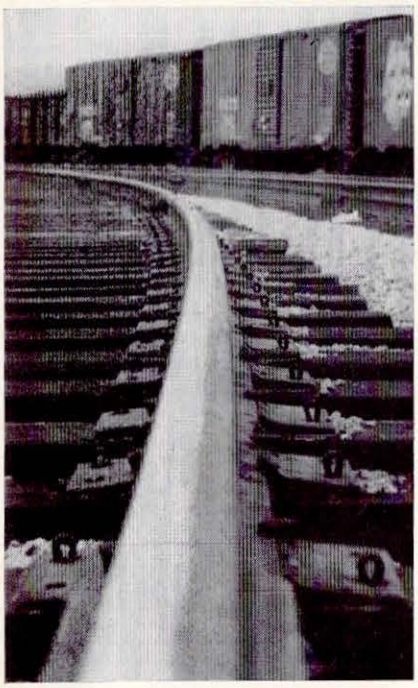
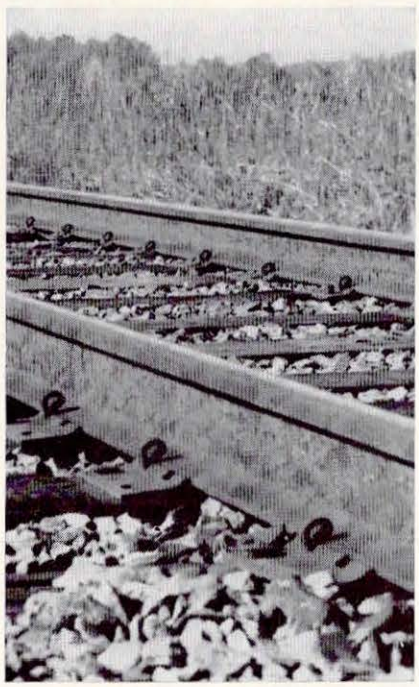


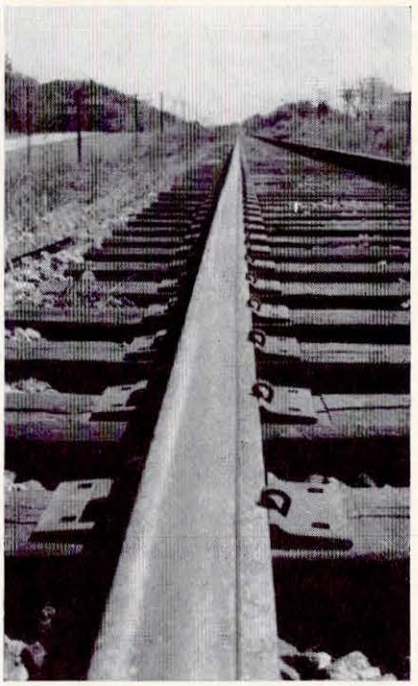
Tie-plate lock spike

This spike employs spring compression to hold the tie plate firmly in place on cross ties and bridge timbers. When driven to refusal, the spread shank is compressed by the walls of the hole, and the diverging sides of the head are wedged into the tie-plate hole. Play between the spike and the hole is eliminated, and the plate is prevented from horizontal or vertical movement under spring pressure. Two lock spikes are normally used with two standard cut spikes in each tie plate.



Gage lock spike

The gage lock spike is designed for use on tangent track and light curves where lateral thrust can be overcome with two spikes at each plate. The spike is offset approximately ⅛ in. at the tie-plate surface to avoid lateral thrust and wear from the edge of the rail base. There is a slight clearance between the top of the rail flange and the spike head to allow for vertical motion of the rail. Two gage lock spikes hold the plate to the tie and maintain gage and line, eliminating the necessity for frequent regaging.



Rail lock spike

The rail lock spike takes up the play between the width of the rail base and the tie-plate shoulder. The slight protrusion of the spike at the tie-plate surface binds against the edge of the rail base and forces the opposite shoulder into contact with the rail base. Thus, rail is held to true line and gage, and longitudinal movement of the rail is resisted.

Bethlehem lock spikes cost more than standard spikes. But maintenance savings more than justify the extra cost. Lock spikes completely fill tie-plate holes . . . maintain gage and line . . . eliminate frequent regaging operations . . . avoid spike killing of ties . . . overcome plate cutting . . . prolong tie life. Drive all three types with conventional track tools.

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Inside

LUTHER MILLER

"CALL ME HAYS"

"He is extremely intelligent and like an elephant he never forgets. He has a disciplined, orderly mind with almost total recall. He has the ability to define a problem and provide a logical solution or suggestion for resolving it. He is a gutsy guy, not afraid to define his principles or make unpopular decisions. He knows how to motivate people. And he can chew you out in such a nice way that you aren't aware of it until you stand up and your rear end falls off."

That is one C&O/B&O employee's description of a man who has been called "a new breed within the new breed" of railroad presidents—Hays T. Watkins, the soft-spoken Kentuckian who at 45 became the 14th president of the Chesapeake & Ohio, and 20th in the Baltimore & Ohio's line of succession.

FIRST—AND SECOND—IMPRESSIONS

A boyish, outgoing informality is what first strikes the visitor to Hays Watkins' 36th floor office in Cleveland's Terminal Tower. You quickly learn that it is more than a pose. "He insists that everyone who works with him call him 'Hays,' and he often answers his own telephone, to the consternation of people who are calling his secretary," says a co-worker.

But if a disarming, down-to-earth informality is a visitor's first impression, the second (and lasting) impression is of a dedicated railroader and a tough competitor.

In his first appearance as president before a C&O/B&O employee group, Watkins commented that one of the most significant changes he had witnessed since coming to work for C&O was the dropping of the slogan, "Sleep like a kitten," and the taking on of a new one, "C&O for Progress." Now it's "C&O/B&O for Progress." In a recent interview with Railway Age (p. 20), Watkins made it clear that he does not intend to let anything stand in the way of translating that slogan into black ink on the bottom line.

TEAMWORK AT THE TOP

Watkins moved quickly after his succession to the presidency to institute what he calls an "executive office arrangement." Vernon Cowan, formerly vice president in charge of the C&O/B&O operating group, was named senior vice president and directed to "concentrate on the railroad affiliates and industry matters, particularly those of an operating nature." John W. Hanifin, formerly assistant general counsel, was appointed vice president, executive department, concentrating on "industry traffic and non-railroad affiliate matters, including joint ventures for the development of C&O/B&O's extensive land holdings in major cities."

"The name of our game is service," says Watkins. He clearly thinks he has a winning team.

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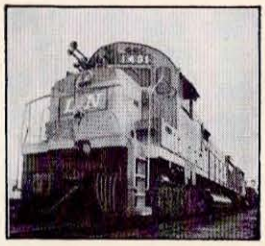

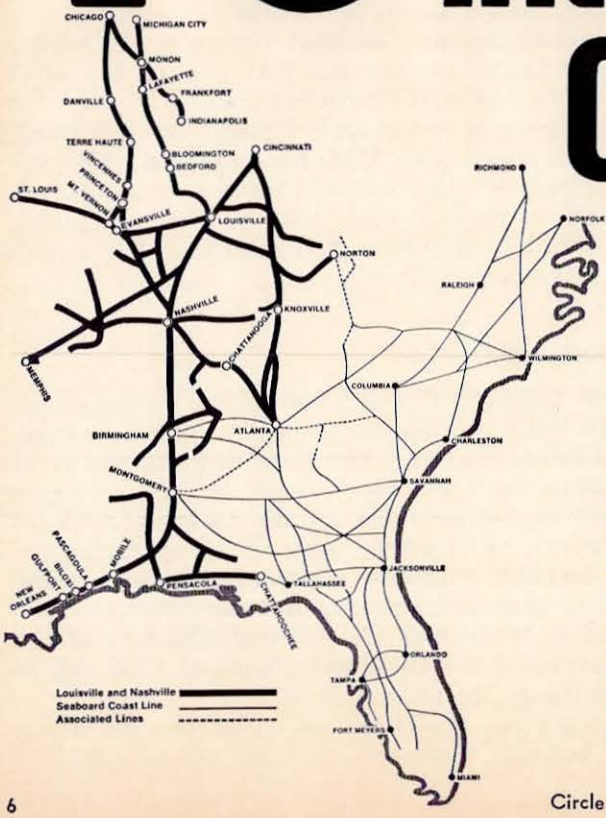

The Louisville and Nashville Railroad recently acquired the Monon Railroad (The Hoosier Line) between Louisville and Chicago. Today, L&N operates over 6540 miles of trackage from Lake Michigan to the Gulf of Mexico. Shippers in the Monon-served area benefit with single line service to the dynamic Mid-South, the Southeast and Gulf Coast markets. South Atlantic markets are easily accessible through L&N's Atlanta Gateway □ L&N shippers everywhere can now enjoy all the economic advantages of single system service to and from Central Indiana markets. Everyone benefits! □ L&N has the capacity and the reach to serve the marketing strategies of your industry. Your L&N sales representative is anxious to help. For information call or write today □

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RAILWAY AGE

AUGUST 30, 1971

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COVER

Bill Baltz photographed C&O/B&O President Hays T. Watkins with Cleveland's Terminal Tower in the background. Watkins' office is on the 36th floor of the Tower; he also works out of Baltimore's B&O Central Building.

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Short and Significant

RAILROADS

PC WITHDRAWS FROM MUTUAL-AID PACT

Penn Central announced Aug. 23 that it had paid $4 million in strike insurance payments to other roads during the July 14-Aug. 2 walkouts and that it would not renew its participation in the industry's mutual-aid agreement. PC also said it had lost $1.8 million in revenue traffic during the strikes, but that it had saved about $2 million from the work-rules changes it imposed.

MASSACHUSETTS WILL BUY PC TRACKAGE

Penn Central has signed a memorandum of intent to sell its main-line passenger tracks between Boston and Rhode Island to the Commonwealth of Massachusetts and the Massachusetts Bay Transit Authority. The purchase price of the 38-mile segment remains to be negotiated. MBTA plans to upgrade and electrify the line.

LV SEEKS CNJ OPERATION

Lehigh Valley is seeking ICC permission to take over Jersey Central freight operations in Pennsylvania if the Commission acts affirmatively on the CNJ trustee's application to cease service between Easton/Allentown and Wilkes-Barre/Scranton, Pa. LV and CNJ consolidated operations on 54 miles of their parallel lines several years ago; LV now proposes to eliminate more duplicate trackage while continuing service to CNJ customers. Reading is also interested in acquiring a portion of the CNJ route (Allentown-Scranton) so it could establish a connection with Erie Lackawanna.

N&W PLANS NEW 5,500-CAR YARD

The Navy will purchase Norfolk & Western's Sewells Point Yard at Norfolk, Va., and N&W will build a new 5,500-car yard at nearby Chesapeake, Va., to replace it. The transaction became assured Aug. 5 when Congress authorized $60 million in military construction projects in Virginia. Purchase price of Sewells Point will be determined in court. The Navy is offering $17.5 million and N&W is asking $26.7 million for the 509.5-acre property.

TRANSIT

FOUR BID FOR SEPTA/N.J. CARS

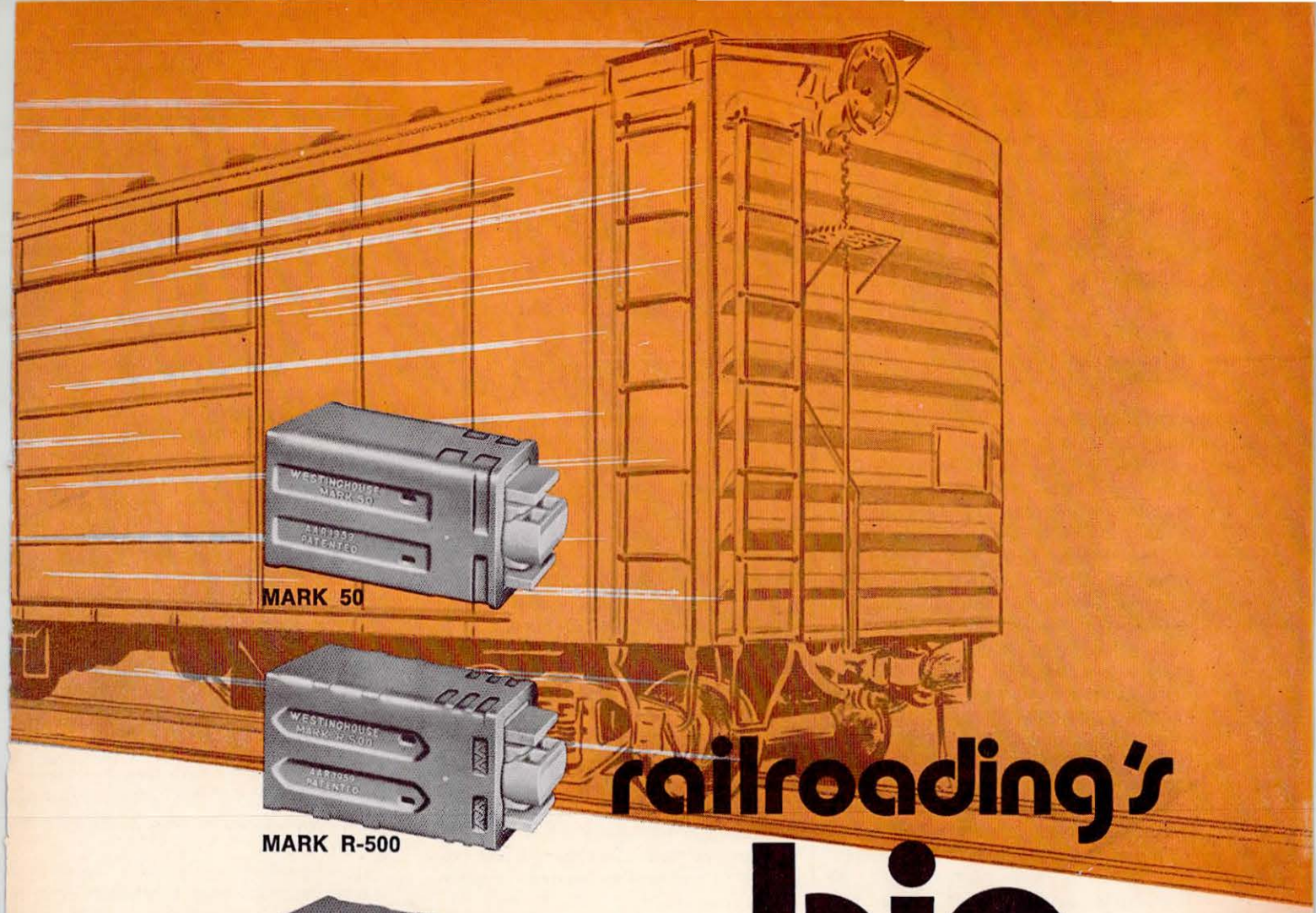
After a day's delay to reconsider their quotations in the light of President Nixon's price freeze and import surcharge, four carbuilders have submitted bids for 234 electric m-u commuter cars for the Southeastern Pennsylvania Transportation Authority and the New Jersey Department of Transportation. SEPTA is seeking 48 single-unit and 96 married-pair cars; N.J. DOT wants 70 married-pair cars. General Electric was apparent low bidder at $83.8 million (including spare parts); Hawker Siddeley Canada quoted $85.7 million; Pullman-Standard, $86.9 million; and St. Louis Car, $107 million. Deliveries would start in less than two years; bids are now being appraised by SEPTA and N.J. DOT.

BOEING WILL MANAGE PEOPLE-MOVER PROJECT

The Department of Transportation has picked the Boeing Co. as the new system manager for its people-moving project at Morgantown, W. Va. Boeing takes over responsibility for the Morgantown Personal Rapid Transit (PRT) system from Cal Tech's Jet Propulsion Laboratory. Earlier, JPL had selected Boeing as a subcontractor for design and development of vehicles for the system. As a demonstration project, Morgantown will have a computer-operated, small-car system connecting the two campuses of West Virginia University and the downtown area. A fleet of 70 to 100 rubber-tired, 17-passenger, 15-ft cars is envisioned. Speeds will range up to 30 mph.

100 CARS IN NEW $120-MILLION CTA PROGRAM

The Chicago Transit Authority will file a request with the Urban Mass Transportation Administration in mid-September for an $80-million grant to cover two-thirds of a new two-year, $120-million capital improvement program. Included in the program are 100 rapid transit cars, 1,000 buses and a $13-million project for station modernization and other improvements. Aside from needing UMTA approval of the grant request, the new CTA improvement program also hinges on a yet-to-be-handed-down Illinois Supreme Court decision on the validity of a state transportation bond program. State funds would cover all or most of the local one-third contribution to the CTA program.



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What the Nixon package means to rails

Wall Streeters Isabel H. Benham and David M. Day summed up the situation succinctly: "The President's new policy combined with changed attitudes in Washington warrants a bullish attitude towards the rails."

The "bullish attitude" forecast by Shearson, Hammill's railroad analysts on Aug. 17 was in abundant evidence last week. Railroad and railroad supplier stocks were active and healthy, buoyed not only by the promise of more freight and more equipment to handle it—but also by the recent work-rules settlement and brightening prospects for Federal legislation favorable to rails.

Railroad labor leaders were less than happy with the wage freeze (*see facing column*). But railroad management was generally well pleased with the President's proposals for these reasons:

—Restoration of the investment tax credit, as proposed by the President, will permit railroads to add thousands of new cars to their freight-hauling fleets on top of the normal flow of orders, as well as new locomotives and additional investment in fixed facilities such as class yards. (The "normal" rate of ordering this year would have been about 55,000-60,00 new cars, without the investment incentive which Congress will be asked to enact in September. Industry sources have estimated that the tax credit could add 15,000 cars on an annual basis.)

—Railroads will not be able immediately to seek another general freight-rate increase, which they had been discussing just days prior to the President's wage-and-price freeze. However, as Shearson, Hammill's Benham and Day pointed out: "Recent freight-rate increases have more than offset higher wage rates effective to date. Thus Nixon's wage-price freeze will be significantly beneficial to the industry as long as this freeze is effective."

—The Benham/Day report also suggested that "the railroads as primary haulers of automobiles, lumber, steel and coal should be major beneficiaries of the new business environment."

—Perhaps most important for railroads, in the long run, will be the effects of the President's new policy on spiraling wages and prices. Few industries have been harder hit by inflation than railroads. They pay out a substantial portion of their revenues in wages and benefits. They are heavy buyers both of capital goods (an average of about $1.5 million annually in recent years), and operating materials and supplies (another $1.5 million).

Said one western railroad president: "My only quarrel with the President is that he didn't do this many months ago."

Freight-car builders were the first to feel the effects of the President's Aug. 15 economic proposals.

By one report, a single carbuilder had inquiries for nearly 7,000 cars in a 48-hour period. Another builder reported "a tremendous amount of activity."

E. T. Ahnquist, president of the Pullman-Standard Division of Pullman Inc., noted cautiously that the early activity represented space reservations rather than firm orders. He added:

"Until Congress meets to finalize its programs, the true impact of the President's action will not be known. There is no doubt, however, that favorable action on any type of investment tax credit will spur the nation's railroads to buy badly needed freight equipment."

The new tax credit, as proposed by the President, would be similar to that of several years ago which served as a strong stimulus to railroad purchasing. The main difference is that the previous credit was 7%; the President has now proposed a 10% credit until Aug. 15, 1972, dropping to 5% thereafter.

While there has been criticism of the proposal to restore the investment-tax credit, the chances for its enactment into law are regarded as excellent. It has broad bi-partisan support. Chairman Wilbur Mills (D.-Ark.), of the House Ways and Means Committee, had earlier urged the President to restore the tax credit, if such a move were accompanied by wage and price controls. Chairman Russell Long (D.-La.) of the Senate Finance Committee has indicated that he will go along.

Wage freeze defers Oct. 1 pay boosts

Rail labor's reaction to Presiden Nixon's surprise wage/price freez could be summed up tersely: Conster nation, compounded by confusion an maybe, confrontation. Different union had different problems:

—The United Transportation Unio was in the ratification process on th Aug. 2 wage/rules agreement, an UTU negotiators were recommendin approval. The agreement, however calls for a wage increase retroactive t last April 1 and for a further increas Oct. 1. Although the pact was not ra tified before the Aug. 15 freeze date the retroactive pay apparently will b permitted—but the Oct. 1 boost wil have to be deferred until the freez expires.

—The Brotherhood of Railroad Sig nalmen, under a strike ban imposed b Congress, didn't know which way t jump. No negotiation sessions had beer held since June, though one is now se for Sept. 7 and the ban is scheduled t come off Oct. 1. Said BRS President C J. Chamberlain: "It's a very confusing situation—and our people are very dis turbed by it."

—Shopcraft unions and the carriers once reported near agreement, were instead at a break-off point. At the same time, however, the Administration was asking all unions to put a moratorium on strike actions.

—Members of unions which had reached contract agreement (including the Clerks, Locomotive Engineers and Maintenance of Way Employes) were scheduled to get increases effective Oct. 1. They won't get them.

UTU had the added complication of trying to proceed with business-as-usual at the organization's quadrennial convention in Miami Beach, while also trying to proceed with contract ratification, while also trying to clear away the confusion involved with the freeze. Convention and ratification period, coincidentally, were almost an exact overlap: The convention opened Aug. 9 and was scheduled to run 19 days; the ratification procedure began Aug. 10 and, under the UTU constitution, was to be completed in 21 days.

UTU did complete one major item of business as scheduled Aug. 16. Delegates elected Al H. Chesser as president, succeeding Charles Luna, whose retirement is set for the end of this year. Chesser has been UTU's national legislative director, and had held a similar post (pre-merger) in the Brotherhood of Railroad Trainmen.

UTU NATIONAL AGREEMENT—SUBJECT TO RATIFICATION

I Wages and fringes

1. Wages
37% over 42 months, 42% compounded. Special adjustments for road engineers and firemen, and for road conductors formerly represented by BRT. $1 per day increase Jan. 1, 1973, for ground service employees without a mileage component in their assignments.

2. Vacations
5th week after 25 years, effective 1973. Military service credits.

3. Holidays
Granted 9th paid holiday.

4. Jury service
Pay for actual time lost with a maximum of 60 days pay at the basic daily rate, effective 1973. Pay for service on jury to be deducted, except for court-paid meal-lodging-transportation allowances.

II Rules

1. Switching service
Right to use yard crews to switch pre-existing industries between new industries and switching limits within a 4-mile radius of limits.

2. Interchange service
May require road crews to receive solid trains from connecting carrier or deliver solid trains to connecting carrier; gives carrier right to specify additional adjacent interchange tracks at interchange points; permits carrier right to use additional interchange tracks (minimum number) without necessity of filling first track used; may require crews in interchange service to handle interchange to and from foreign line.

3. Road/yard moves
Without penalty, road crews may be required to make one straight pickup at another yard in initial terminal (in addition to picking up train) and one straight setout at another yard in final terminal (in addition to yarding train); to pick up and/or set out cars at intermediate points; to switch out bad-order cars from trains; to handle engines to and from train and ready track and engine house; to pick up and set out cars from their train from or to minimum number of tracks capable of holding the cars; and to exchange engine of their own train.

4. Merger of seniority
Rosters of trainmen and yardmen may be combined on a topped and bottomed basis.

5. Use of radio
Made part of employee duties. Weight rule included in agreement. Arbitraries to be eliminated effective 1973. (See adjustment for ground service employees under 1. wages.)

6. Interdivisional runs
a. On runs which do not operate through home terminals(s):
—Carrier may serve letter of intent.
—Carrier/union task force is appointed to discuss operation.
—If task force is unable to agree, run may be operated on trail basis 30 days after service of notice.
—At the end of a 60-day test period, the parties will hold conferences.
—If there is no agreement after 30 days, the question will be submitted to the ranking carrier labor relations officer and a UTU vice president. If they are unable to agree within 30 days, the question will be submitted to arbitration under the Railway Labor Act. Decision of the arbitration board is to be made within 180 days of date of letter of intent.
b. On runs proposed to operate through home terminals(s).
—Carrier may serve notice of intent to establish a rule under which such runs may be operated. If carrier/union negotiations do not produce agreement within 90 days, a task force will be set up for final and binding determination. Task force will consist of one carrier member, one union member and one member appointed by the National Mediation Board. Task force decision is to be made within 180 days of date of notice of intent.
—Upon establishment of the rule outlined in (a), carrier may serve notice of intent to establish such run (s). Carrier/union task force will attempt to reach agreement within 30 days. If no agreement is reached, the matter will be submitted to arbitration under the Railway Labor Act. Decision of the arbitration board is to be made within 60 days of date of notice of intent.
c. Conditions governing establishment of such runs will include:
—Miles over 100 miles will be paid for at first 100 mile rate.
—Transportation will be provided for crews required to report or to be relieved at a point other than the on and off duty points established for the service.
—Second meal allowance will be provided for crew when held away from home 12 hours.
—Crews on runs of 100 miles or less will not stop to eat. Carrier will determine conditions under which crews may stop to eat on runs over 100 miles. If no stop is permitted, crews will get allowance of $1.50.

7. Employee protection
—Employees adversely affected by interdivisional run rule will receive protection as basically provided by Sec. 5, 6, 7, 8 of the National Railroad Passenger Corp. agreement, except that protective period will be equal to the employee's seniority (but not to extend beyond employee's 65th birthday).
—Same protection will apply to employees spending more than 50% of their time in interchange work who are adversely affected by the reciprocal interchange rule; and to employees (interchange or transfer crews) adversely affected under the solid-train interchange rule.
—Every other employee adversely affected by interchange rule or road/yard movement rule will receive protection as basically provided by Sec. 6, 7 of the NRPC agreement.
—Employees required to change residence because of application of the interdivisional run rule will receive benefits as provided by Sec. 10, 11 of the Washington Job Protection Agreement, plus transfer allowance of $400.

8. Expenses away from home
Expense provision of 1964 agreement is amended to cover men in train, engine, yard service called from the extra board to fill vacancies at outlying points. Effective 1972, meal allowance will be increased from $1.50 to $2, with an additional $2 after the employee is held an additional 8 hours (total of 12).

9. Standing committee
Carrier/union committee will be formed to deal with basis of pay, car-scale additives, elimination of arbitraries, mileage holddown, road-yard proposals not disposed of, reduction of work month for stewards, overtime in passenger service, etc.

10. Moratorium
Will cover all items settled in the agreement and those referred to the standing committee. New notices may be served after Jan. 1, 1973, but not to become effective before July 1, 1973.

The ACI Scanner

Do you have a terminal control problem?

If so, I think you will be interested in these recent ACI Systems Corp installations which have permitted some dramatic breakthroughs in terminal control:

Terminal Entrance-Exit Control was accomplished with 8 ACIS Rail Scanners completely encompassing a large rail terminal. All entering and departing trains and all yard transfer movements are recorded. At one entrance, 4 ACIS Rail Scanners are multiplexed to 1 Label Decoding Processor (LDP). A second entrance is covered by 3 Scanners multiplexed to 1 LDP and 1 Scanner/Decoder is placed at the remaining entrance. The system is directly interfaced with the central IBM 360-65 computer.

Intra-Yard Terminal Control for a railroad was achieved with 9 ACIS Rail Scanners multiplexed to 3 ACIS LDP's. The LDP's are connected directly to the railroad's terminal multiuse Honeywell 115 Computer.

Another recent installation includes a complete system for *Piggyback Terminal Control* with ACIS Road Scanners in one of the nation's foremost piggyback terminals. As many as 500 trailers are handled per day. The Scanner systems are directly interfaced with a PDP 15 host computer, furnished and programmed by ACIS.

Let's discuss the type of ACI Systems Corp installation that will solve *your* terminal control requirements!

W. H. Thompson
President

ACI SYSTEMS CORP

200 S. Michigan Ave., Chicago, Illinois 60604
Phone: (312) 427-0236

Circle 7 on coupon page 33

BN forges ahead in yard building

Yard improvements are getting a top priority at Burlington Northern—with construction now under way on the $30-million-plus Northtown Yard at Minneapolis, with a late-1971 startup planned on a new yard in the Spokane area, and with work just completed on a $4.5-million project to expand a yard at Pasco, Wash., and to convert it to a computer-based automated classification facility.

When it's completed, in 1975, Northtown will be the largest of BN's nine electronic yards, with a capability for handling 3,300 cars per day. Time-savings on traffic moving in the Twin Cities area is estimated at an average of 18 hours.

Plans call for Northtown to have a 63-track bowl, an 11-track receiving yard, nine-track departure yard and 13-track transfer yard. Support facilities will include a 25-unit-capacity locomotive service/repair shop and a 70-car-capacity car-repair facility. Park Construction Co. of Minneapolis has been awarded the $4.5-million first-phase contract, covering grading, drainage, fencing, landscaping and demolition of on-site buildings.

Details and the exact location on the Spokane-area yard have not yet been announced. But BN does have a cost estimate, of about $28 million.

Heart of the modernization of Pasco Yard is a General Electric GE/PAC 4020 process-control computer. The 4020 is linked to car retarders, power switches, wind and weight detectors, radar units, car-location detectors and yard-office data-processing units. The computer is programmed to control the entire car classification process, from beginning to end. KarTrak automatic car identification scanners check trains into and out of Pasco, and feed their readings directly to the process-control computer. Also, the computer controls the speed of the hump locomotive pushing cars over the crest in the classifying process.

Input/output devices providing man-machine interface are located at strategic supervisory and control offices, such as hump conductor, retarder operator and yardmasters. Most I/O units have typewriter keyboards and CRT display devices. Some have hard-copy paper output to provide current switch list or classification-track inventory.

Other key hardware upgrading efforts were directed to replacing car retarders with General Railway Signal type E160 units to handle cars with 40 tons/axle loading and wheels up to 38 inches in diameter.

Addition of the process-control computer with its digital handling capability enables BN to provide Pasco with the basic hardware for application of terminal performance controls. While Pasco Yard before modernization had unit record equipment for data processing, automatic switching and retarder controls, it lacked the computer capability to control the hardware of the classifying process and the necessary paperwork as well, particularly keeping an inventory of cars classified.

Another factor urging modernization was the merger which created BN. Pasco formerly handled only NP and SP&S traffic. Now it handles what was formerly GN traffic. Present car counts run somewhat over 1,500 cars in and 1,500 cars out daily.

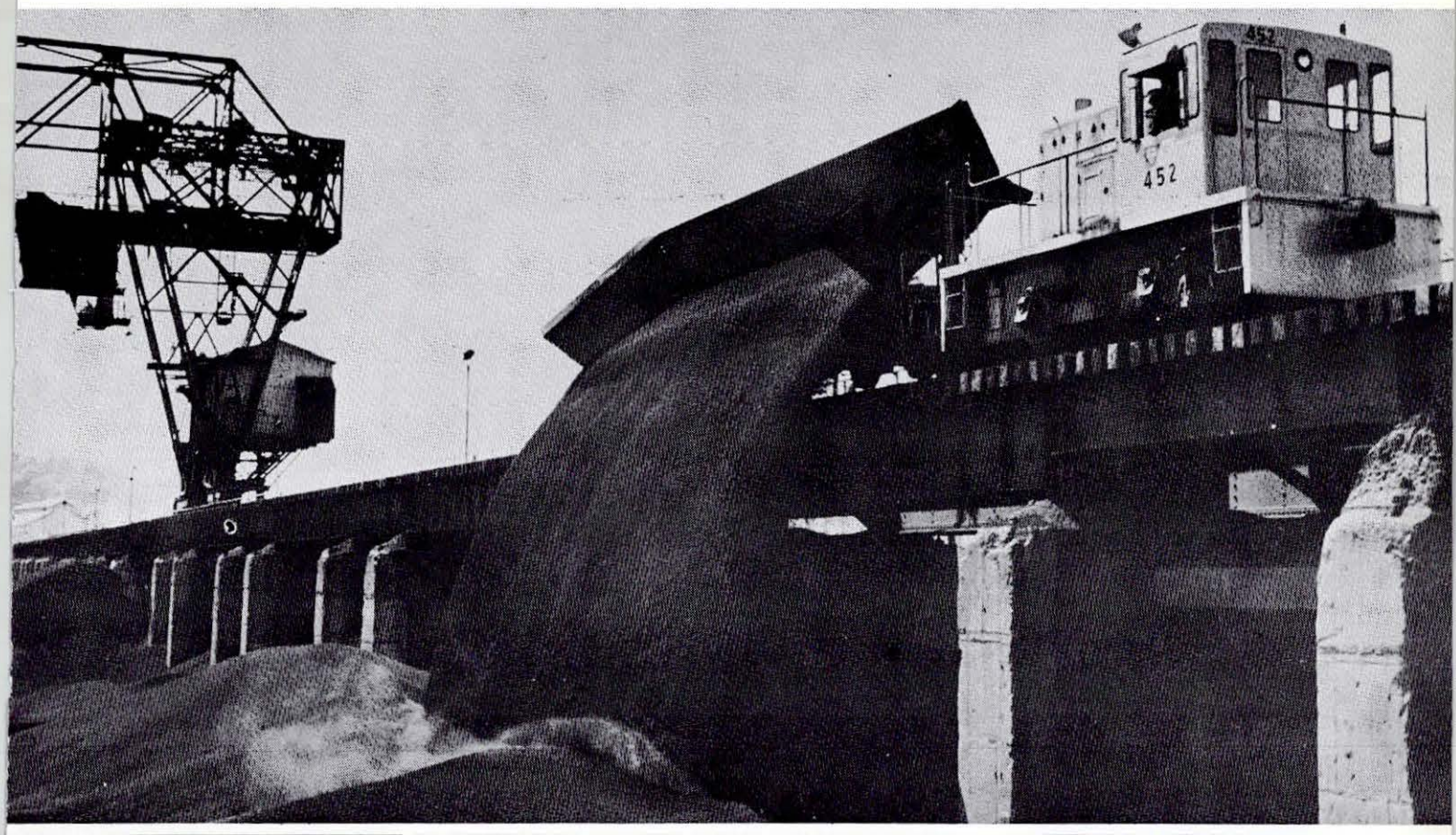
Building a more accurate data base and providing current, accurate information regarding train consists has been the main accomplishment of installing GTE Information Systems ACI scanners at Pasco Yard entrances. Two scanners are located at the double-track west end and one scanner is located at the single-track mainline east end. Former car checking by clerks recording car initials and numbers using walkie-talkies is no longer required. Also, the ACI scanners feed into the computer so that almost immediately, train-consist data is available for checking against advance consists for preparing switch lists. The ACI scanners also provide outbound checks on departing trains. This information is sent to the next yard and also to BN's computer complex at St. Paul.

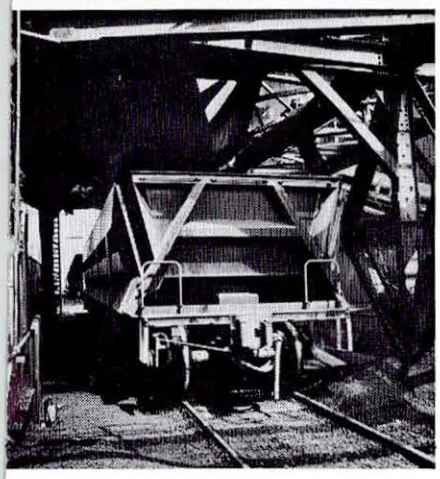
AAR to impose car-service fines

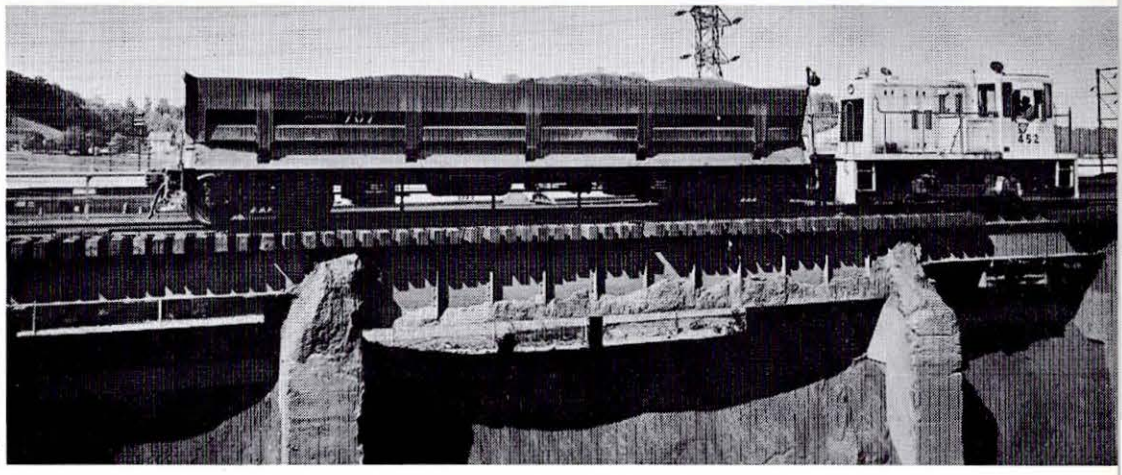
Starting Sept. 1, the Association of American Railroads will levy a fine of $50 per car per day for violation of its car-service orders in an effort to improve freight-car utilization. Revenues from the fines will be used to expand the number of AAR car-service agents.

Also in the area of car utilization, the ICC on Aug. 11 reopened its incentive per diem proceeding (Ex Parte 252 Sub. 1). The proceeding was reopened to solicit comments on questions raised by the AAR on the Commission's plan which requires railroads to purchase new cars with net receipts from an incentive surcharge imposed on top of regular per diem charges between September and February. Comments must be filed with the ICC by mid-September, replies by Oct. 1.

ARMCO DUMPS ON THE MOVE







WITH EFFICIENT SHUTTLE-HAUL

One DIFCO Air Dump Car moves 100 tons at a time, up to 35,400 tons a day.

Not all applications of DIFCO hauling equipment involve strings of cars. At their Ashland, Kentucky, steel-making facility, ARMCO Steel Corporation uses a single DIFCO Side Dump Car to achieve top efficiency in a stockpiling operation.

The 100-ton capacity car shuttles back and forth, carrying iron ore pellets from a loading facility to the stockpile site. Fast loading from an overhead car-tipper and dumping on the move from a trestle permits ARMCO to haul up to 118 loads per 8-hour workshift. With the shuttle in service around the clock, total hauling tonnage can exceed 35,000 tons daily . . . with *one* car!

DIFCO's smooth 8-second dumping action and 50° self-cleaning dump angle are essential features in maintaining maximum speed in the shuttle-haul operation.

Perhaps DIFCO Air Dump Cars—just one or maybe a whole string—can help solve your heavy haulage problems, too. We would welcome the opportunity to give you more information. Please call, wire or write today.

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And carry more of. Because its unique pear-shaped interior makes fuller use of cube. And with models from 2970 to 5700 cubic feet to choose from, you can maximize payload on products of any density.

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ACF Industries, Incorporated, Amcar Division, 110 Clark Street, St. Charles, Mo. 63301.

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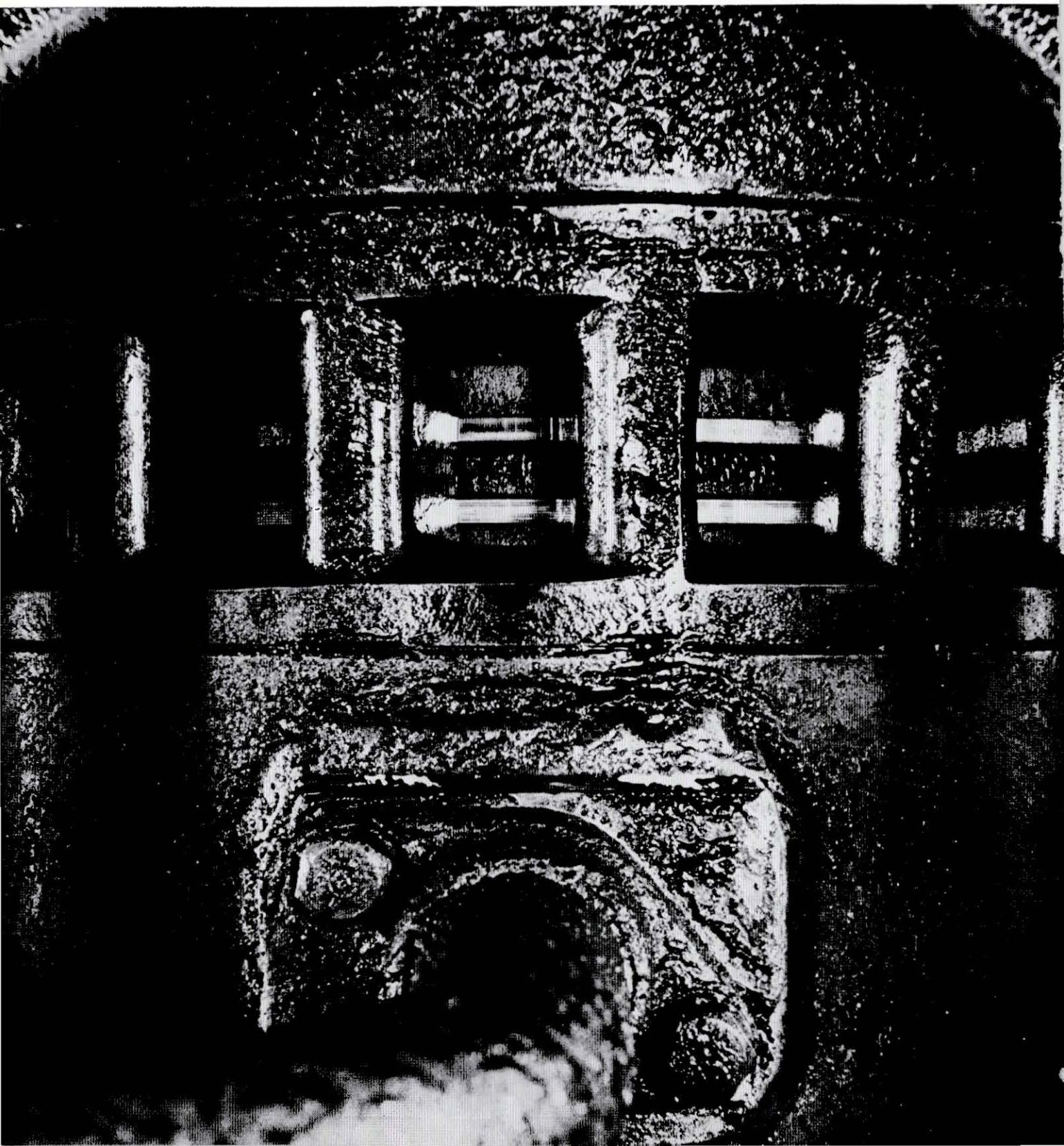
Shell Tornus® Oil has railroad–for over a



been working on the half billion miles.

High performance TORNUS Oil has been helping over 2100 EMD diesels run at top efficiency for 18 leading railroads. Total track miles to date: over 650,000,000. Good idea to get acquainted with this oil.

There are many convincing reasons why Shell TORNUS Oil is preferred by leading railroads. One big reason is better performance for EMD's, resulting in long-term cost savings over conventional oils. Just look what this oil does:

It helps keep engines clean—TORNUS Oil contains dispersant additives that keep carbon and soot particles in suspension. The oil gets dirty instead of the engine.

Result: lower engine operating temperatures, freedom from ring-sticking, oil ring plugging and deposits in the intake air ports that can steal power.

It provides anti-wear protection—This oil maintains an alkaline reserve that helps protect engine parts against corrosive wear.

It helps prevent engine damage from water leaks—The additives in TORNUS Oil help it "swallow" water. There's less danger to engines when minor water leaks occur.

It provides safe lubrication over extended service intervals—With TORNUS Oil, periods between cleaning of oil coolers are longer than with conventional oils. Oil filter life is two to three times better. Oil quality between changes can be maintained and drain life extended.

It helps reduce the frequency of engine shutdowns—TORNUS Oil stretches the time between costly shutdowns caused by plugged filters and hot oil alarms. It helps keep oil coolers clean and keeps trouble-causing particles in suspension.

Efficiency plus savings

Add up these advantages and you see that TORNUS Oil not only helps EMD's maintain efficient operation; it can offer users of conventional oils long-

term savings as well. Savings through less frequent replacement of moving parts such as pistons and bearings. Savings in engine clean-up time at overhaul.

Shell specialists made TORNUS Oil the hard-working, stable oil it is today. And they're not sitting on their hands. They're watching the horsepower curves. They're thinking about the next generation of Shell lubricants for high-output engines. Keep an eye on Shell.

Is there an idea here for you?

Your Shell Representative is the man to see for full details about TORNUS Oil. Call him soon at the Shell office nearest you. Shell Commercial Marketing, One Shell Plaza, Houston, Texas 77002.

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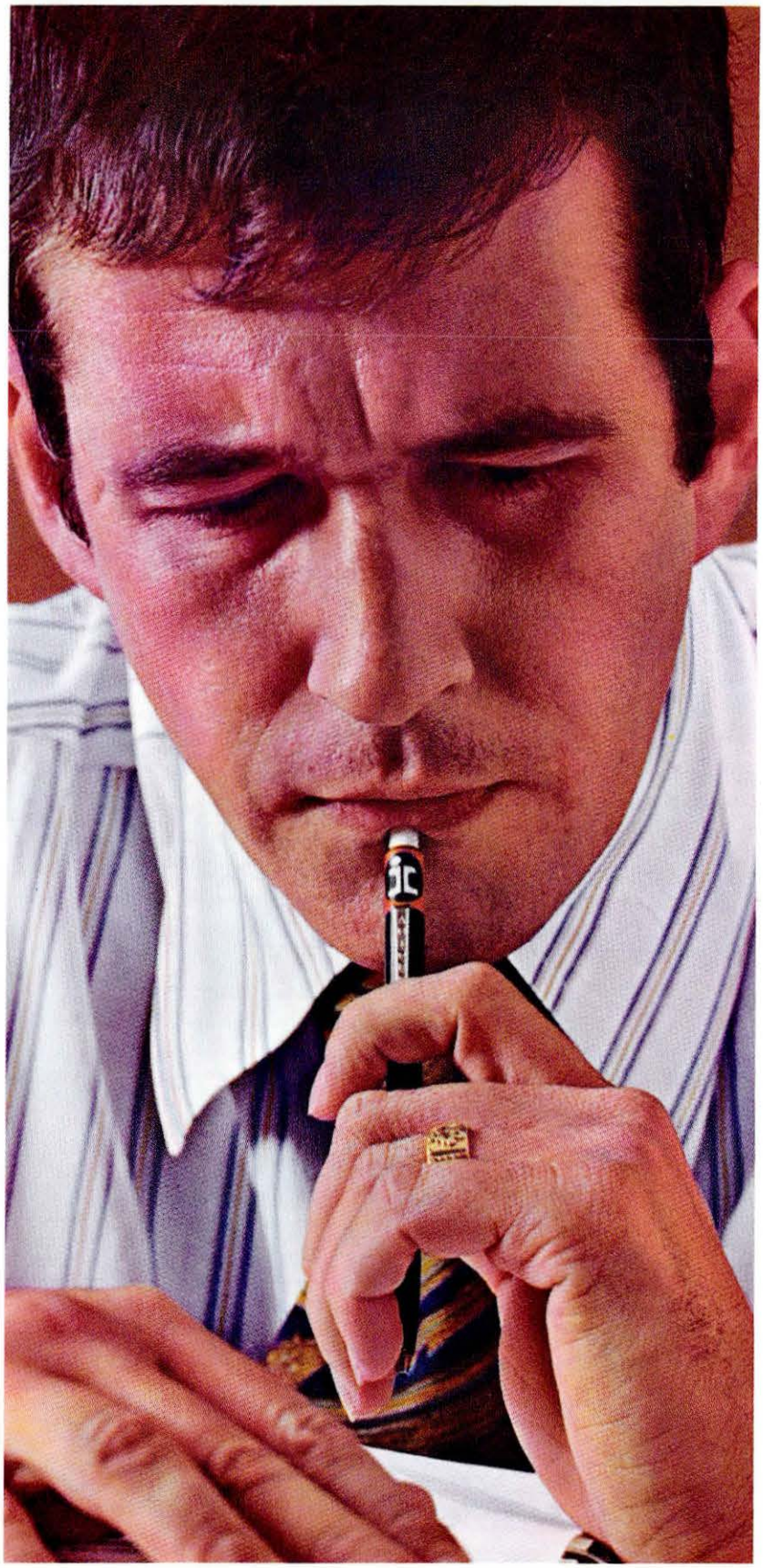
Shell Tornus® Oil

SHELL

◀ AFTER 94,360 MILES, the No. 3 cylinder of this EMD-SD-40 on TORNUS Oil is exceptionally clean. No power-robbing deposits on air intake ports. Rings are in excellent shape. Original hone marks are still clearly visible on the liner. EMD-SD-45 diesels are typical examples of the more than 2100 EMD engines throughout the country using TORNUS Oil.

If you ship things, an IC marketer may save you $1,000 or two days

(or keep you from losing your best customer)



This man can do for you what he's doing every day for other smart shippers, large and small. He's a marketing man. With our marketing team, he helps shippers make their own bright ideas come to life. Together they find fresh approaches to making rates, new ways to use equipment, new routings, advantageous schedules, and better ways of moving each car to its destination.

Our marketing people are good at getting the most out of this railroad for every shipper. After all, they conceived Rent-a-Train, the Green Thumb Special and Maxi-Rate.

That's why most shippers rate IC tops for leadership in modernized freight handling; for knowing customers' shipping needs, and for solving customers' freight problems.

Our railroad and our shippers, working together, are making savings that help all Americans to hold their family budgets in line.

To solve a marketing problem that involves shipping, call or write Tim Lyman, Asst. VP-Marketing, 135 E. Eleventh Place, Chicago, Ill. 60605. Phone (312) 922-4811. Or talk to your nearest IC traffic man.

Illinois Central Railroad

an IC Industries company

Marbles roll west in covered hopper

If you had a half-billion marbles you wanted to ship across country (and it wasn't downhill all the way), what would you do?

Hopefully, you'd call your friendly railroad problem-solver, and you and he would work out something as imaginative as the method now being used to ship those half-billion marbles from Parkersburg, W. Va., and Defiance, Ohio, to the Johns-Manville Fiber Glass, Inc., plant at Corona, Calif.

Originally, J-M's Corona facility got its marbles in 100-pound bags. Later, shipments were made in 3,000-pound wood containers. Both methods had disadvantages. And so J-M, working with Santa Fe traffic representatives, decided to try shipping in one giant "container"—the covered hopper car.

This isn't the highest-volume business a railroad ever handled. The marbles, about five-eighths of an inch in diameter, originate on Baltimore & Ohio (Parkersburg) and Norfolk & Western (Defiance) with Santa Fe handling the move to Corona—and last year, all those marbles moved in just 165 carloads. But, it's good business and J-M is happy: Load capacity in a covered hopper car runs to about three million marbles—and there's no problem of salvaging containers.

J-M uses the marbles in the manufacture of low-density, high-resilience insulating fiber by a flame attenuation process. The marble glass itself is of laboratory quality—and it's produced in the form of marbles because they're easier to handle and control. A single marble, it's said, would yield the equivalent of a glass fiber 2,771 miles long and 15 times finer than a human hair.

And, while the marble-movement is new and novel, Santa Fe notes, rail transportation also plays a major role in meeting J-M's other needs—with inbound movement of rolls of fabricated paper backing and outbound shipment of finished products, including blanket insulation, pipe insulation, liner for air conditioning ducts and duct wrapping.

Beatty leaves AAR after 34 years

Albert R. Beatty, one of railroading's best known and most highly respected public relations men, retires Aug. 31 as assistant vice president of the Association of American Railroads.

Lines on Labor

GUS WELTY

NOW, IT'S "GOODBYE, CHARLEY . . ."

So, the United Transportation Union, the rail labor movement and the railroads will have to go on from here—without Charley Luna. It gives him nothing unearned and it takes nothing away from his able successor to say that CL will be missed, by those who worked with and against him and by those who were just observers of his career (1963-71) as top man in the Brotherhood of Railroad Trainmen and later in the United Transportation Union.

THIS IS THE MAN THAT WAS AND IS—AND MIGHT HAVE BEEN

Luna has been one-of-a-kind—a gambler, a man of engaging vanity, an operator whose "po' li'l Texas boy" approach was the down-home veneer laid on top of one of the keener minds ever to be dedicated to rail-employee representation.

In his years with BRT and UTU, he won stunning victories—and he suffered his share of defeats. He knew how to handle both. Always, he seemed to be on the verge of statesmanship. And if he never quite made it, in full flower, perhaps it was less a failing of the man than failings of the system and even of the men around him.

AND WHERE DO WE GO FROM HERE?

In terms of public notice, Luna came from nowhere in 1960. BRT President W. P. Kennedy was in trouble in a reelection battle. Luna backed WPK. WPK won, and so did Luna. He was named assistant to the president, winning in a runoff against the same man who had earlier challenged Kennedy. Luna was the heir, and in 1963 he claimed the inheritance.

Then came defeat, the fireman-manning and crew-consist award of Arbitration Board 282. Luna waited. And when the award "expired" two years later, he struck. By one means or another, the union won reversal on virtually every major road of the train-service crew-cutting that had been done under 282.

Victory and defeat continued to alternate. On the positive side, Luna—working along with Ed Gilbert of the Brotherhood of Locomotive Firemen & Enginemen—was a key craftsman in building the four-way merger that resulted in UTU. He became UTU's first (and, until now, only) president. On behalf of UTU, he claims a share of credit for passage of several major pieces of legislation. He has been labor's man at Amtrak. And, of course, it was the Luna-led UTU that persuaded the courts to OK a selective strike in a national dispute. Defeats? There have been a few. Luna and UTU have by no means been all-victorious in jousting with carriers, courts and Congress. But defeats closer to home may have been more painful—the failure, for instance, of the Illinois Central/UTU JOBS Commission to come up with anything meaningful, and the refusal of UTU's ex-BLF&E members to accept a settlement of the fireman-manning dispute.

Now, it's a new ball game. Can more progress be made in work-rules reform? You hope so. Have Luna's recent tactics damaged the bargaining process? You hope not. Will greater statesmanship finally emerge? You hope so. You live in constant hope. And in that context, "Hello, Al Chesser . . ."

C&O/B&O's Hays T. Watkins:

"Railroads can be a growth

Hays T. Watkins became president of the affiliated Chesapeake & Ohio/Baltimore & Ohio on March 31, 1971, 22 years and three months after joining C&O as a $300-a-month staff analyst. At 45 he is one of the youngest major chief executives in the industry's history. In 1961, he was appointed treasurer of C&O, and two years later an assistant vice president. Following affiliation of C&O and B&O, he was named in 1964 vice president-finance for both roads.

Interviewed by Railway Age's Luther Miller and Gus Welty, C&O/B&O's chief talked about the fortunes, present and foreseeable, of the C&O/B&O in particular; the industry in general.

Q. Mr. Watkins, C&O/B&O has done well, in less-than-good economic times. How do you account for this?

A. First, we have an extremely aggressive sales and marketing group, and we are continuously researching new services and other innovations that will benefit both our customers and our railroads. We have had a financial position which has permitted substantial capital-expenditure programs, and these give us the physical strength to provide good service. We have a certain geographical advantage, in serving the industrial East and the eastern coal fields. We have an organization which is dedicated to giving service—and I think that dedication extends to all 45,000 of our people.

Q. How do you size up 1971?

A. For the first half, we had substantial improvements over the last year in both gross and net. But the third quarter has been a different story with labor problems in our industry, the threat of a steel strike that fortunately didn't come, and increasing unrest in the coal fields. It is early yet to assess the effects of President Nixon's dramatic economic package.

Q. Over the long range, are you optimistic?

A. If I weren't, I wouldn't be in this job or in this industry. The railroad system is vital to the nation's economy. Given greater understanding by the public and by national and state legislative bodies, I think you'll see railroads playing an increasingly important role.

Q. As a growth industry again?

A. It depends upon what you mean by growth. Certainly, we should expand as fast as the nation's economy. And I'll tell you this: We will do everything we possibly can do, to grow faster than the nation's economy. Railroads *can* be a growth industry.

Q. You cited C&O/B&O capital programs as a factor in promoting growth. How substantial are your current programs?

A. They have averaged between $125 million and $150 million over the past several years. For 1971, we will spend about $125 million for equipment and $25 million for fixed-plant improvements. Actutlly, we try to work as best we can on a five-year-program basis. We're working on the specifics for 1972 now—and, while I doubt that we will spend as much as in '71, the total will be in the same area.

Q. The Federal Railroad Administration has proposed safety standards for track and roadway, and will deal later with standards covering equipment and operating practices. What's your assessment of the standards proposed thus far?

A. I think they would bankrupt the entire railroad industry, in short order.

On C&O/B&O, we have always had a policy of maintaining track and equipment in a safe condition, adequate for the operating speeds and characteristics of our railroad, and adequate for providing good service to our customers. We have never sacrificed maintenance for the sake of reporting profits.

But to get back to the specific question of these proposed track standards: The initial cost of conforming has been estimated at more than $2 billion for the industry. The increase in annual costs thereafter has been estimated at 'way up in the tens of millions. Now, standards are necessary and desirable. But we have to be realistic. And these standards will have to be tempered with practicality and realism, or else we will all be out of business and safety standards will be purely academic. Make no mistake, this is a major problem. I know that the people who designed these standards have the highest motives. But I'm

"If I weren't optimistic, I wouldn't be in this job or this industry . . . ."

afraid they have failed to realize what the financial impact will be. In our case, we would probably have to go out of business if the standards are fully adopted as proposed—either that or operate at such low speeds and with such infrequent service that we would soon put ourselves out of business.

Q. Is it possible that a trust-fund approach might help in this area?

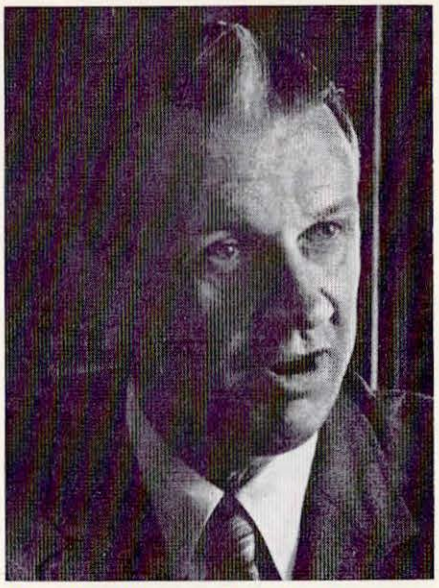
A. It's possible. But not enough details on a trust fund are yet available. I think the concept may be sound; I think experience with the highway trust fund has proved that.

Q. Do you have any plans for electrifying heavy-traffic lines? And, at the other end of the scale, are you planning large-scale abandonment of little-used lines?

A. We have made two detailed electrification studies, in conjunction with electric utility companies. The first one, on the eastern end of our railroad, has been completed and the joint study team found that we could not justify electrification at this time. The second study, on the midwestern part of the system, is still under way and we're not sure yet what it will show. And there

industry"

"... Given greater understanding by the public and legislators ..."



"... You'll see railroads playing an increasingly important role."

is a third area of high traffic where we may make a study later. We're going to continue to study electrification, because there may well be areas where it is or will become economically feasible.

As for abandonments, at the time I took office, we set up a top level committee—headed by a former chief transportation officer—to make a thorough study of how much plant we actually need. We just went to the ICC with a first installment of 19 abandonment packages covering little used lines. Our committee is moving ahead steadily and we know there is a substantially greater amount of branch line mileage which cannot be justified by us or by the public.

Q. When you go into new programs, how do you evaluate the return on them?

A. Every capital project is subject to a series of evaluations—physical, engineering, financial, whether it ties in with long-range objectives. On a lot of projects, ROI is hard to measure—projects involving ecological considerations, or the replacement of wornout facilities, or safety, or compliance with legislative or union contract requirements. Because of this, we have to very carefully screen those projects that do promise to give us cost reductions or improved revenues and perhaps a higher rate of return. Of course, we have to take into account interest rates and the effective tax rate at any given point in time.

Q. Would any of the proposed equipment-financing aids be of particular benefit to C&O/B&O?

A. We have been able to borrow the money—even though at historically high rates—to finance all our equipment acquisitions so far. So I am not sure there would be any direct effect from either the equipment-insurance bill or the so-called Transportation RFC. But there might be an indirect effect—because the more able the industry generally is to place new equipment in service, the better off we all are. As for reinstatement of the investment tax credit, certainly this would act as an incentive.

The main reason for acquiring equipment is to serve customer needs, and the tax credit or absence of it is just one factor to be taken into account. But reinstatement of the tax credit might tip the scales and enable us to justify a decision to acquire equipment, especially specialized equiment, in cases where acquisition might otherwise be only marginally justifiable.

Q. In the equipment area, you've been an exponent of the build-your-own philosophy. . . .

A. Over the past 10 years, we have filled 50% to 60% of our freight-car needs from our own shops—and I believe our Russell, Ky., shops compare favorably with any in the country. We feel we can do an excellent job on those types of cars for which we have a large demand—open-top hopper cars and certain types of gondolas.

Q. At the same time, you work closely with a number of suppliers on equipment improvements . . .

A. We do not have our own large-scale research and testing facilities, as some suppliers do. Generally, we concentrate on defining our needs and suggesting areas where further studying and testing should be done. We have worked very closely with the locomotive manufacturers—in fact, we have just completed a joint activity on development of an electronic testing system. We're making tests involving various types of roadway machinery—tampers, ballast cleaners and tie-disposal units, for instance. Our product development department works with customers on their equipment requirements, and this gets us into joint efforts with the carbuilders.

Q. How about other technological areas? What, for example, will computers be doing for you five or 10 years from now that they aren't doing today?

A. Two major things, I think. First, there is an increased emphasis on capturing all the information on a transaction or an operation initially. This will come through ACI, through other more sophisticated input devices, at the time a car is loaded or moved or at the time billing information is available. The more information we get, at the outset, about an operation or a shipment, the better we can plan for handling it. The second thing is a companion to the first—and that is to have our operating people using computers more and more in their day-to-day management.

Thus far, there have been three major

waves of computer technology on most railroads. First was computerization of the bulk clerical functions, the day-to-day bookkeeping and accounting which is drudgery for human beings and can be done with greater facility by computers. Second was development of car location and information systems aimed primarily at serving shippers and operating management. Third—and the area where the real potential lies—will be the use of computer data for management, in the field. We have just seen the beginning of this—and I think this is where the real breakthrough will come in the next 10 years.

Q. How important will ACI be?
A. Very important. As you know, we have had pilot installations of scanners, and we are planning to do more of this kind of testing on C&O/B&O. We are also participating in the ACI program proposed for the Chicago terminal area. As for labeling. we're in the high 90% range so far as our own equipment is concerned. But we have to hit 100%, because so many of the benefits are not available unless we have complete coverage.

It's this simple: The more we can generate source data electronically, the fewer errors we will have. When humans are involved, errors happen. But when machines are involved, properly designed and programmed, the information is accurate—and there is almost no end to this information that can be made available.

Q. How about your use of simulation techniques?
A. We have made some use of the AAR network model. Again, this is an area we believe will become increasingly important—the use of simulation to evaluate and test alternatives.

Q. How have you been able to use the computer for costing—for determining what is profitable traffic and what isn't?
A. For internal purposes, we cost out every carload of traffic that we handle. This is done on an incremental basis, showing the cost of handling a particular carload, assuming that over-all plant and traffic levels are within current ranges. This gives us what we term "contribution." These data are accumulated periodically—and we have the ability, through computers, to combine data by type of product or by customer or by sales region or by traffic route or gateway or by any of hundreds of measures.

With this, we can see what is making a contribution and what is not. We can see areas where sales effort should be concentrated. We can see areas where some change should be made,

COAL is "flood" loaded at Barrett, W. Va.

LIQUOR CAR takes on a load.

Working toward an improved traffic mix

SOLID piggyback train in Pennsylvania.

either to increase revenue or reduce cost. Where we find traffic that makes little or no contribution or is handled at a loss, we go in not with any idea of getting rid of the traffic but rather with the view that it has profit potential if we can develop greater revenues and/or lower costs.

We also do ICC out-of-pocket and full-cost calculations. The incremental-cost system is used primarily for internal management purposes. It's been in being for perhaps 15 years. We're continually tinkering with it to try to perfect it—but as it is, we think it's one of the most sophisticated such systems in the industry.

Q. Where do your marketing specialists fit into the picture?
A. These specialists, or market managers, work with transportation and distribution people in various industries, with two main aims. One is to develop a full understanding of an industry's distribution needs and problems. The second is to work with customers and potential customers on new services, operations, equipment, distribution patterns and so forth, where there can be mutual benefits. We've found a number of areas—our Through Bulk Service (TBS) is just one good example—where this kind of activity produces joint benefits.

Q. Mr. Watkins, while the C&O/B&O system has been able to prosper and move ahead, for the reasons you've noted much of the rest of the industry is in deep trouble. How do you regard the over-all situation?
A. It's precarious. The railroad industry has never had more problems. And it's unfortunate that we had to have the bankruptcy of one of the largest corporations in the world to bring home to the American people the fact that railroads are in trouble. Today, we do seem to be developing an undersanding on the part of the general public and of Congress as to the seriousness of the situation. I think we should remember, though, that there have been times in the past when the public and Congress seemed to think railroads deserved better treatment—but when it came to specifics, something seemed to break down. Our recent industry activities have done a lot to alert the Congress and the public to the need for legislative action. Now is the time for all of us to get behind the Transportation Act of 1971 and see if we can get some real help.

Q. Is nationalization a real threat?
A. For certain parts of the industry, I think it definitely is. But it's certainly not the answer. Take just the cost aspect alone. It would be staggering,

not just in initial cost but in continuing annual costs.

Q. If Penn Central were to be nationalized, would there be a domino effect?

A. A lot would depend upon whether government would choose to pursue an enlightened transportation policy. We hear frequently that in Canada public and private rail transportation exist side by side. But the Canadian government has taken a very forward-looking approach to railroad and transportation policy. I'm not sure whether we would have such an approach here—but it's the key: The establishment of a sound, sensible, rational, objective national transportation policy.

Q. Realistically, what are the chances of getting such policy adopted, and soon?

A. The chances seem better than they have been for many years. It's most encouraging, for example, that the various surface-transportation modes themselves recognized the problems of the transportation industry and have been able to agree on what approaches should be taken.

Q. Besides the agreement among transportation modes on industry problems, do you see any coming-together in the service or operation areas?

A. Over the next few years, I'm convinced we will see greater cooperation among virtually all forms of transportation, so that each of us can concentrate on the areas in which we can do best. We talked earlier about branch lines—and there is no reason why a railroad should have networks of such little-used lines. We could have, instead, a system with traffic assembly or concentration points in which trucks and railroads would cooperate. Trucks are so much better adapted to pickup and distribution activities, while railroads do best in long-haul movement of concentrations of traffic. Air freight has certain advantages, in movement of small-package, high-value freight where fast delivery is a must. Water transportation has its advantages. I would hope that each mode, working with the others, could take part in a truly coordinated transportation system.

Q. Can this happen, short of intermodal ownership?

A. It will be a lot more difficult to achieve without intermodal ownership. But I think it's possible. We're all moving in the direction of trying to get more flexibility in working with other modes. We're all seeing that it's to our advantage, and to the country's advantage, to work together. All of this, of course, doesn't mean that there's any lessened competition. It does mean that we're coming to a better understanding of our own problems and the other fellow's problems.

Q. In the context of operations today, will the railroad share of the market go up or down?

A. Some people have predicted that it will drop to about 30%. I think it can continue at about 40%. I think railroads have the ability and the physical facilities to continue it at that level. But we have to have service—adequate, dependable, on-time service. We have to have better cooperation among railroads—and this is something that is still too often overlooked.

Q. One way to develop better inter-railroad operation may be to have fewer railroads. Keeping in mind that C&O and Norfolk & Western have called off their proposed merger, what's your view of the future of rail mergers?

A. We may have more mergers. But I think the movement has just about run its course, largely because of the inordinate delays involved. Regulatory agencies and the courts feel that they have to take adequate time to protect the public interest and to give every interested party his say. But this creates an almost-impossible situation in a regulated industry. If we had known in 1964, for example, that our merger proposal with N&W would still be just a proposal seven years later—well, I'm not sure we would have proposed it in the first place. One of the other bars to merger, of course, is the increasingly high cost of protection—the cost of labor protection, labor separation, employee relocation. Today, there is just less and less financial and economic incentive to merge.

Q. How about the situation of the poor roads?

A. That is a problem. Certainly, they need financial assistance. But take the Rock Island as an example. If there has been any road in a more precarious financial position, I don't know which it is. The merger and control proposals involving Rock Island were first made back in the early 1960s, and they're still a long way from any decisions. Their difficulties have not speeded up the merger or control process.

I think, by the way, that the C&O/B&O case was a good example of what can be done through a consolidation—with a strong road getting together with a weaker but potentially valuable one, for all-around benefits. We believe the benefits of this kind of consolidation have been proved. We hope that there can be reasonable progress toward future coordinations. But the day of the really large-scale railroad merger may well be past.

Q. How about diversification? By and large C&O/B&O seem to stay pretty close to railroading. . .

A. We've studied this very closely, and we've decided that we should concentrate in the areas we know best. We do have certain peripheral activities, more or less as adjuncts of the railroad business. As you know, we have The Greenbrier, at White Sulphur Springs, W. Va., which typifies the best in resort hotels. We have certain real estate projects, primarily involving land which was once used in the railroad business but which has become unneeded for transportation.

Q. Are you interested in buying a company in another form of transportation?

A. Not unless we determined it was financially justifiable, and that it fit into our over-all corporate planning. We would have no interest in owning just for the sake of owning. We do get proposals from time to time from other companies—some of them in other industries. We look at these proposals carefully, where there seems to be some degree of mutual advantage.

Q. Your shareowner house-parties at The Greenbrier have become something of a legend. How much do they cost C&O/B&O?

A. These parties are one of the finest ideas that has come along. We actually make a little money on the deal. On the one hand, we have the shareowners paying to come to one of their company's operations—and I think our revenues on these parties thus far have run to almost $3 million. On the other hand, it's good for the shareowners because they get a package rate and they have a chance to see the hotel that they own a part of. In June we announced a Labor Day weekend house party, the first without rail transportation included in the package, and we are 50% oversubscribed. So, I think we're going to see more parties—perhaps one at Thanksgiving and our annual meeting in the Spring.

Q. How about shipper relations?

A. I've visited with over 300 of our shippers in the last few months and I've been very pleased at the many compliments I've received—not for anything I've done, but for the service our people are giving. My answer always is "Thank you," and a pledge that we will continue to do our best. I cannot speak highly enough of the performance of our people and I think we are all committed to making our service, good as it is, even better. ■

"Everybody on the Southern is an ID man"

Jerry L. Townshend
General Manager,
ID department

Challen E. Caskie
Assistant to General
Manager

Norvon Clark
Development
Manager

Robert J. Stall, Jr.
Manager, Research
and Planning

J. C. Cook
Industrial Properti
Manager

Solid system-wide support, from the President's office on down, adds wallop to highly-centralized industrial development effort that leaves very little to chance.

The Southern Railway was not the first in the U.S. to have an industrial development department. "Illinois Central beat us by a year," concedes J. L. Townshend, Southern's general manager of ID.

But that's just about the only concession Townshend will make to any other ID organization.

"We're not going to follow; we're going to set the pace," says Townshend.

Recently Southern has set the pace in putting together a whole new kind of industrial-development machine.

In a sharp departure from customary practice, Southern has pulled its entire ID force together into a centralized operation. A team of six Industrial Development Managers, who used to maintain offices out in the field, now work out of Washington. They still have specified territories, where they spend about half of their time as the "eyes and ears" of the ID department. But each also is now a specialist in a particular industrial category. Norvon Clark, as development manager, heads this group.

The Development Group is backed up by a Research and Planning Group, headed by R. J. Stall and including a mineral resources subsection, staffed by two professional geologists; a planning engineering subsection, staffed by two civil engineers and a draftsman; and a professional economist and a research specialist.

There is a third subsection, also reporting to Stall, consisting of a professional economist and a research specialist who assemble data on business trends, new process developments in manufacturing, urban-area growth patterns, local living conditions, and all the other variables involved in community and site evaluation.

Southern's ID Department also has an industrial properties management division, headed by a properties manager and a projects coordinator. They supervise the maintenance of some 1,200 existing buildings owned by the railroad and leased, or available for lease, to rail-oriented customers.

• **The proof is in the profits.** Southern broke new ground with its centralized, blitz-strategy approach to plant location. While ID men on other railroads may still be wondering if it will work, Townshend isn't.

"The system is working well," he says. If the proof is in the profits (and Townshend is fond of saying, "Everything here is on a profit-center basis") he has strong supporting evidence. In 1970, with the new system in full operation, Southern located new and expanded industries that will bring in an estimated $19.2 million in additional annual revenues; this compares with $18.1 million in 1969.

While the Southern has only about 30 people assigned to its ID department. Townshend states that he really has a staff of many thousands.

"Everyone on the Southern is an ID man," he says. "You find them in the law department, sales, real estate, taxes, operations, finance, engineering. And in the President's office. Graham Claytor has a direct line to my office. Don't think he doesn't use it."

• **How it works.** Southern describes its new ID setup this way: "Consider a request from a manufacturing concern seeking assistance in making an investigation of certain mineral potentials. Or for subsoil conditions as affecting foundations. The Industrial Development Department's Mineral Resources sub-section under Research and Planning would respond by evaluating deposits of sites from a geologic standpoint, running samples through Southern's testing laboratory. If these proved further interesting, the Planning Engineer unit might design a preliminary track layout for that same location, or for another related to the same project. The Industrial Economics unit would also become involved, seeking out related raw materials sources, best transportation routes, data on commodity or industry growth, labor and other cost-related factors. Finally the 'package' would be presented to the prospect by the Industrial Development Manag-

"It's not how many carloads—but what kind"
Attracting high-rated traffic, such as appliances, is the goal of railroad ID men.

ers, who follow up by personally conducting the prospect on a tour of recommended locations. Next comes close liaison between the prospect and Southern Railway as matters such as rates, equipment and service begin to enter the negotiations."

● **Qualitative vs. quantitative.** Townshend points out that ID is more than a numbers game. "It's not just how many carloads of freight a new industry will provide. It's what kind. There's a lot of difference between 500 carloads of sand and 500 carloads of TV sets."

The railroad is also keenly aware of environmental factors.

Benefits all around

"What we seek," says Townshend, "is maximum benefit for our customers in terms of the best location for their plants and/or warehouses. There is also the highest and best use of the land involved, maximum economic benefit to the community considered, and, of course, the opportunity for Southern Railway to participate in the movement of materials and goods into and out of the facility."

Townshend instructs his men to work closely with environmental control agencies at all levels. "Our plans call for increased emphasis on the avoidance or control of dusts, odors or other forms of air pollution where use of our properties is involved. By the same token, we are being especially careful against adding to sewerage problems and water pollution."

● **80 years of change.** Southern's ID department dates from the very day, in 1892, that the system was put together through the merger of a number of small roads.

Early in the century Southern had 30 to 40 agricultural and horticultural agents, who knew everything there was to know about crops, cattle, sheep and chickens. Southern's men were known even then for doing the unusual. One agent went to the Orient and brought back Satsuma oranges for test-growing in Alabama. Others traveled regularly to Europe to entice farmers to emigrate to the South and to make the crops that would make carloads of freight for the Southern.

By around 1925, county farm agents had taken over many of the duties formerly performed by railroad agents, and today's ID man began to take shape. (The last agricultural agent retired from the Southern in 1961. His final assignment: test-planting beans, peas and carrots near Asheville, N.C. The test was successful and as a result Gerber Bros. put up a plant there. Then the Ball Corp. put up a plant next door to make the needed jars. Ball was so pleased with the Asheville operation that it has now erected a $13-million plant at Greeneville, Tenn., also on the Southern, for casting, milling and fabricating zinc. Says Ray Green, Ball's general traffic manager: "At both Asheville and Greeneville, we received excellent cooperation from the Southern System, both in the planning stages and after the plants were built and production rolling.")

Since World War II, the emphasis has been heavily on industry. For the post-war boom, Southern found itself in an excellent geographical position. During the decade of the 60's alone, the 16-state southern region of the U.S. added 9,859 factories and 1,211,000 workers, leading all other areas in the country. Many of these factories found their way to Southern lines.

A number of pluses make the South attractive to industry: available land, favorable tax rates, an abundant labor supply at competitive rates, and, last but not least, a climate that minimizes plant shutdowns.

● **The competition is fierce.** But being in the right place at the right time isn't enough, points out Townshend. He figures there are about 16,000 different ID organizations in the country, and for four of them in particular he has a healthy respect: those of the competing Seaboard Coast Line, Norfolk & Western, Louisville & Nashville, and Gulf, Mobile & Ohio.

"The competition gets pretty fierce," says Southern's ID manager.

It was to cope with this competition that Southern, in 1968, rewrote the rules of the game.

For years, Southern had maintained its ID men in key cities—Charlotte, Meridian, Atlanta, Louisville, Birmingham, Macon, Knoxville, Richmond, Greenville, S.C., even in New York.

"This worked fine for a while, but needs changed. We needed more expertise—for example, in industry categories. It was Bob Hamilton [R. S. Hamilton, executive vice president, marketing and planning] who suggested that we have specialists in given fields. For example, one of our men, Frank Young, has the responsibility for Georgia and Florida. But he is also an expert in locational factors as affecting the primary metals, mining and quarrying industries. And if his particular expertise is required outside of Georgia and Florida, he moves in."

Townshend sums up: "People in the South want industry. They're gung-ho for it. They cooperate. We cooperate. We think we're setting the pace."

Penn Central: New customers are still flocking on line

The reason, say the men who run PC's industrial development department: "Bill Moore has changed everything. Our railroad has never operated so efficiently."

In the widening and intensely competitive world of the professional plant locator, V. J. Floyd and O. W. Pongrace would not seem, at first glance, to be the most enviable of men.

Their assignment is to attract new customers to a railroad that only a year or so ago was so "clogged" (as Floyd candidly puts it) that old customers were fleeing. Their task is to persuade industry to locate new plants and expand existing facilities along the lines of a bankrupt carrier that makes no bones of its intention (given the necessary approvals) to abandon 8,000 of its 20,000 miles of main line.

Yet Penn Central Transportation Co.'s Vince Floyd and Otto Pongrace are as cheerful a team of industrial developers as you're likely to meet today. And with good reason.

● **So far this year: 282 successes.** In this year's first seven months, Penn Central's ID Department helped to bring 282 new and expanded industries on line: a wood chip mill at Kane, Pa.; an auto assembly plant at Fairlane, Ohio; a modular home fabricating plant at Battle Creek, Mich.—altogether, enough new and enlarged facilities to open up 7,000 jobs in a 16-state area and bring the railroad more than $15 million in extra revenues on an annually recurring basis.

Floyd says confidently: "This year we expect to have more new industries than we had last year or the year before." Last year the total of new permanent, temporary and expanded industries located on line was 530.

There have been problems, and neither Floyd nor Pongrace attempts to minimize them.

Says Pongrace: "There were customers whom we wanted to put on line who necessarily asked the question, 'Well, how do we know that you are going to stay in business?' And then there were the service breakdowns just prior to our going into reorganization. Some industries would go to a state development agency and say, 'Show me a lot of sites, but I don't want to be on Penn Central.' But almost invariably we could get to those people and convince them that this was a temporary situation which should not affect their long-range planning."

Floyd adds: "Actually, when you get right down to the important column [permanent new industries] we had nine more in 1970 than we had in 1969—yet for half of that year we were in bankruptcy, and for more of that year the railroad was so clogged that it was hard to move anything.

"When you look at the traffic that was moved in 1970 on industries located in 1968—giving them a couple of years to get into production—the carloads were way off. These were industries that were getting established. Our railroad just was not operating efficiently.

"But with Bill Moore coming on the scene, everything was changed. He and his team have done a tremendous job and have made our job easy. The railroad has never operated so efficiently. Talk to almost any industrial developer or anyone in industrial traffic and they will tell you Penn Central has never been in such good shape, service-wise."

● **"Will this line be abandoned?"** Doesn't Penn Central's widely-publicized line-abandonment plan make the plant-location job immeasurably tougher?

It makes a difference, Floyd concedes. It also poses a challenge. "One of our jobs," he says, "is to make bleeder lines into feeder lines. One big industry can keep a line going. But if a smaller industry is considering locating on a branch line, the first thing they ask is, 'Will this line be abandoned or not?' We look into the situation and give an honest answer."

Pongrace mentions the good communication which exists between the ID Department and the department involved in the abandonment process: "We are informed of each line which comes up for review. We notify the manager in the territory involved. He makes an on-the-spot survey. When he says he sees no potential for the line, then we report that we have no objection. On the other hand we have saved lines by locating plants which have put them back into the profit area."

● **A lot going for ID.** Despite Penn Central's well-publicized problems, its ID Department has certain intrinsic advantages.

Penn Central serves an area that embraces 50.3% of the U.S. population and 61.3% of employees engaged in manufacturing. There is a continuing demand for new industrial sites—and PC is in a good position to meet that demand. PC serves more than 300 industrial parks which still have 70,000 acres of available industrial sites; in addition PC has more than 18,000 acres of its own prime land available for industrial sites, and beyond that lists 220,000 acres of privately-held land.

There is also the fact that the two railroads which came together to form Penn Central were traditionally strong in industrial development—and the equally important fact that merger of the ID departments of the two roads was accomplished smoothly.

For one thing, Floyd (ex-Pennsylvania) and Pongrace (ex-New York Central) were long-time friends.

"Before Otto came with the New York Central," recalls Floyd, "he was in industrial development with the Ford Motor Co., and he put 21 Ford plants on the Pennsylvania."

Upon merger, the ID responsibility was split into north and south jurisdictions. Floyd, director of industrial development at Philadelphia, oversees six

A MERGER THAT WORKED: Vince Floyd (ex-PRR) and Otto Pongrace (ex-NYC) worked as a team long before the Penn Central merger—and they still do.

regional ID managers at Philadelphia, Baltimore, Pittsburgh, Cincinnati, Indianapolis and New Jersey. Pongrace holds the same title at New York, with responsibility for ID managers in New York, Syracuse, Boston, Chicago, Cleveland and Detroit. They report to A. P. Funkhouser, senior vice president—sales and marketing.

Both Floyd and Pongrace strongly favor the decentralized approach. "We have our men where the action is," they say. "If something happens in Indiana, and you're in Philadelphia, you may be three days late getting there and by that time the industry may be another railroad."

On any given day each of PC's 12 ID managers is working with 80 to 130 prospects.

● **"We know every inch of ground."** In one of its brochures, Penn Central claims: "We've solved more physical distribution problems than anybody. Our marketing men are experts from all walks of industry and are constantly working with our Industrial Development Department to anticipate every conceivable customers' need. We also have experts to answer unusual plant location problems. Problems ranging from geology to taxes. Labor to financing. We know every inch of ground and every body of water in the 16 states and two provinces of Canada we serve. And can recommend a site strictly on merit."

● **Case history.** As an example of the kind of work Penn Central routinely performs for prospective customers, Pongrace cites a case history:

"Jones & Laughlin came to us and mentioned several areas where they would be interested in building an integrated steel mill over a long-term period, starting with a rolling mill. They were also looking at sites on other railroads. We had listed for 10 years a potential site at Hennepin, Ill., and this was indicated as a possibility. Thirty-two property owners were involved. We retained the county agricultural agent, who was also a property appraiser, and he visited each of the 32. We prepared a brochure saying that if the community were interested, we thought we could attract an interest. We met with the president of a bank, with the attorney general, with the power company. We hired a professor of engineering at the University of Illinois to evaluate soil boring data. The steel company at this point was very interested. So our real estate people went out and got options on about 6,000 acres. We turned the options over to J&L. Together with the steel company, we hired a consultant to study a sewage disposal system which could absorb the needs of the new mill. The State Economic Development Department did a labor study. We put in new rail facilities. From the day I first flew over the site in a four-seater plane piloted by the president of the local bank, until the day the deal was clinched, the whole process took about six months. It was a joint effort by a lot of people, including nearly every department of our railroad." The railroad will be rewarded with revenues that will ultimately be in the millions.

Penn Central does not always wait for the customer to make the approach. Recently, PC's ID experts decided that an auto company could use a new assembly plant. After collecting all available data and feeding it into a computer, Penn Central came up with a site proposal—and presented the whole package to the somewhat surprised, but not displeased, auto manufacturer. The plant was, in fact, located on Penn Central—"not exactly where we wanted it, but we were very, very close," says Pongrace.

● **The anti-pollution problem.** A new problem for ID men, and one of profound concern to Penn Central, is the rising public furor over pollution. Floyd and Pongrace go along with the ecologists who want to protect the environment—but they stop at the point where, they say, some communities tend to get "hysterical."

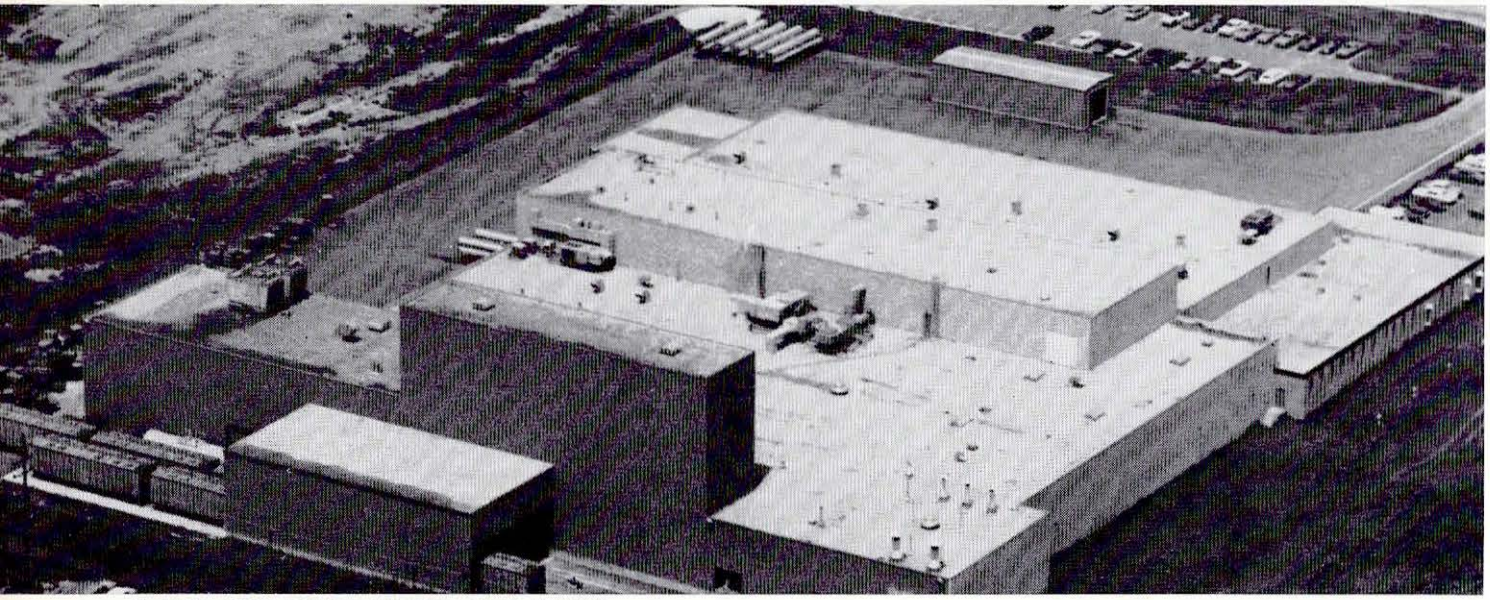
Pongrace (who has written a long, thoughtful paper on anti-pollution for the guidance of PC's force of 50-odd ID men) tells of a metals company that wanted to manufacture cans at a site on the Hudson River. "Making cans is not a dirty process; it's a simple stamping process that doesn't make dirt or noise or anything," notes Pongrace. "But for some reason the local community called a meeting at which everyone screamed bloody murder. The company said, 'We don't want to be where we're not wanted,' and away they went. The first community lost a good industry, out of hysteria, and is not the better for it."

● **The changing nature of ID.** Is the job of the ID man getting tougher? Is it changing? The answer is "yes" to both questions, says Floyd, who joined the railroad as a salesman in 1937 and has been in ID work since 1948.

"Thirty-five years ago our industrial-site salesmen went out with a lot of pezazz, personality and a fistful of cigars. Today they must be highly-skilled professionals. Industry wants to know all there is to know about zoning, soil conditions, utilities, the size of utility lines, taxes, schools. You must run the full gamut—including financing to wrap it up.

"We deal with real estate, engineering, with highways, with politicians, we deal with utilities—with everything that goes into a package of financing and developing a package.

"If you can't produce this kind of professional package, somebody else will. And get the industry. Our job on Penn Central is to produce that package."



A BIG ONE THAT DIDN'T GET AWAY
Fast work on the part of N&W's ID department helped bring this Coca Cola syrup plant to Discovery Park at Columbus, Ohio.

"Go where—and when—the big fish are striking"

By HAROLD TAYLOR

To the layman, the task of a railroad's industrial development team, setting out to lure an industry onto a site the railroad owns, seems as formidable as that of the fisherman setting out into the illimitable ocean to look for tuna. Yet tuna are boated, and industries do erect traffic-producing facilities in railroads' industrial parks.

The secret in either case is the same, according to Joe E. Savely and David A. Cox of the Norfolk & Western: Go where—and when—the big fish are striking. Savely, assistant vice president heading the industrial real estate department of N&W, and Cox, industrial real estate director, say when is as as important as where.

● **Getting there first.** For example, N&W's Discovery Park, 400 acres southeast of Columbus, Ohio, is getting a Coca Cola syrup distributing plant that will serve six states. Minutes after Coca Cola's vice president for marketing concluded that Coca Cola must have such a plant somewhere in the Great Lakes area, an N&W site salesman was knocking at his door.

"If we had waited for some public statement that he was looking for a site," Savely said the other day, "he might have wound up on Penn Central or C&O/B&O." (Both have sites available in Columbus and elsewhere in the Great Lakes area.)

The universe of corporations can no more be covered in this intensive way than can the ocean. The fishing grounds of Savely and Cox are Fortune's 500 largest United States companies. For bait they have 12,000 acres of prepared real estate. There are 53 major sites in 43 cities and towns spread over 10 states. The smallest of these is 43 acres, the largest 1,900.

"What we are after is revenue for the railroad," says Savely, "but at the same time we intend to make money on the real estate."

He and Cox calculate that the real estate, when it is all ready for industry to move in, will have cost $15 million. That doesn't take into account the annual cost of carrying it until it is sold. N&W expects to sell the prepared sites for $40 million, sooner or later, and realize an increment of $10 million or so a year in freight revenues thereafter.

Joe E. Savely, Assistant VP, Industrial Real Estate

David A. Cox, Director, Industrial Real Estate

● **Recurring dividends.** Cox acknowledged that this year's goal of 110 new plants seemed, as of mid-July, to be a little out of reach. Savely put in that industrial development was like an insurance business: One year's writings might show a letdown, but the policyholders from previous years kept sending in their premiums.

He figures the annual revenues at $10 million a year on the average since N&W started its big drive for new plants back in 1964 and 1965. The 1970 figures were 138 new and expanded plants in N&W territory, and $12 million in freight revenues. The industries

(Continued on page 36)

Recently retired from The New York Times, Mr. Taylor still writes frequently for The Times and other publications on business and finance.

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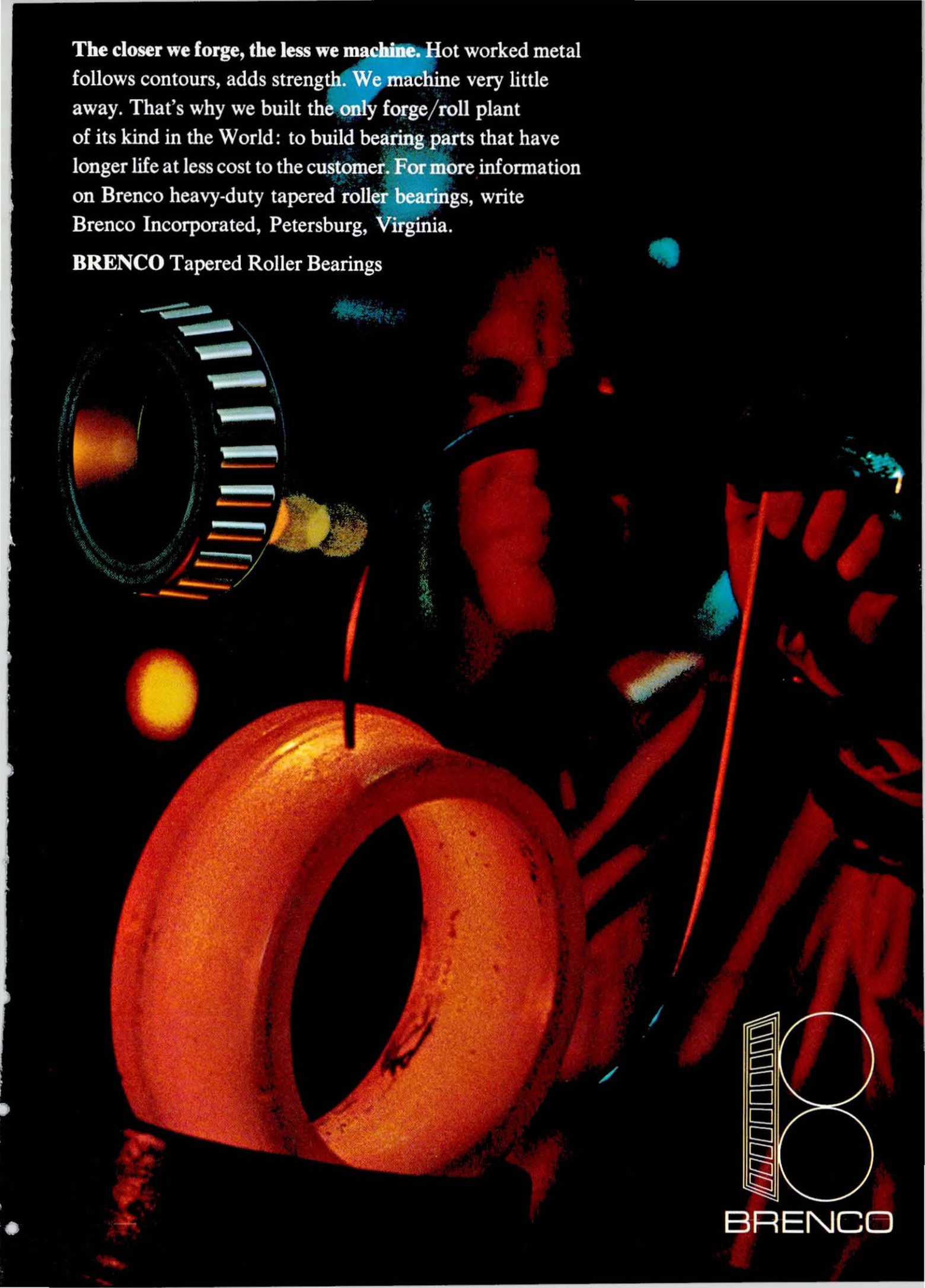

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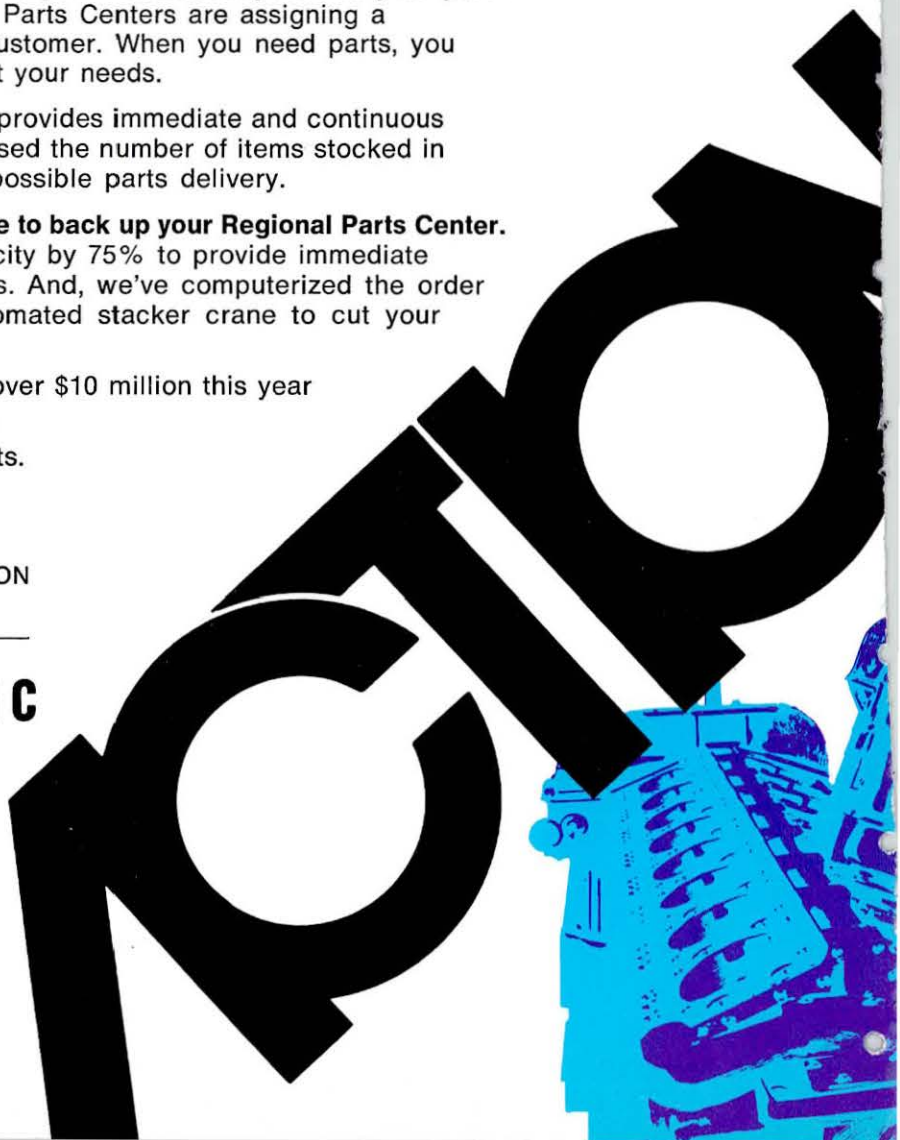

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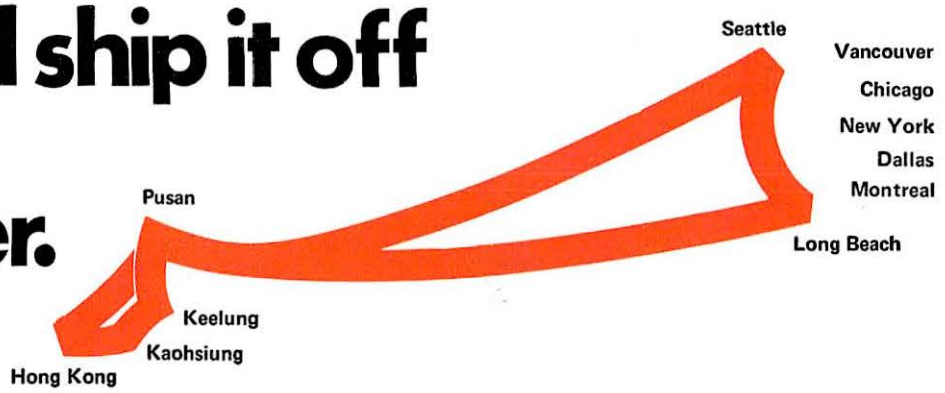

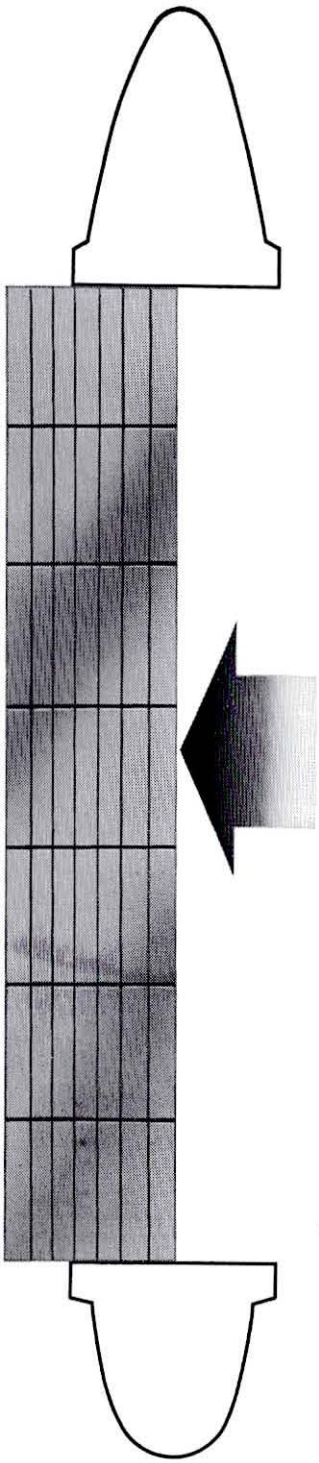

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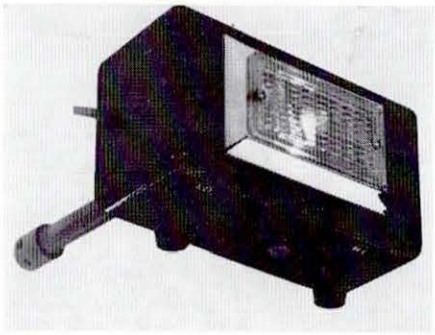
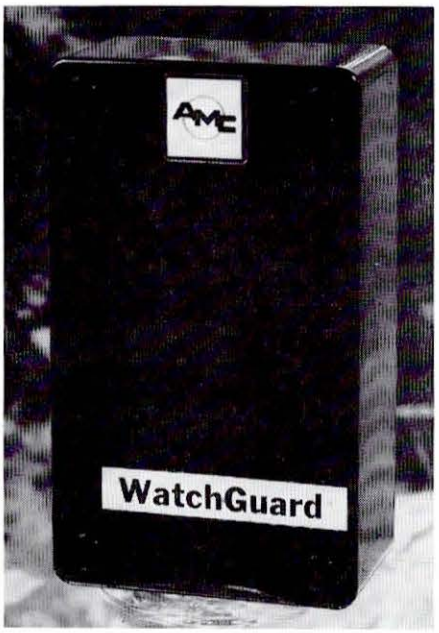


Temperature monitor (RA-1)

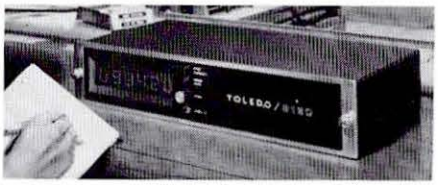
Transitemp, an encapsulated precision microelectronic set point thermometer, constantly monitors the interior temperature of a trailer and provides the early warning needed by drivers and terminal personnel. High and low alarm temperature limits are set by plug-in cartridges available in 1/2-degree (F.) steps from -50 degrees to plus 100 degrees. Trailer temperatures within the safe band are indicated by a steady green glow. If the temperature exceeds either limit, the green lamp is extinguished and a large amber lamp flashes a vivid warning.

There are no moving parts, no adjustments, and no maintenance or periodic calibration is required. Transitemp operates from 12 volts dc. Installation is fast and simple. *Interface Engineering Inc.*



Portable alarm (RA-2)

The WatchGuard system can detect attempted theft of a trailer or the entry into a railcar or container. A small sensing device is placed on the door; it ignores spurious accelerations caused by low level wind gusts but will detect motions such as door opening or vehicle movement. A control/receiver receives the motion sensor's transmissions, decodes them and actuates alarm systems. Several units may be monitored from a single site after the sensors have been taped to the doors. The receiver can be a walkie-talkie type which a driver carries with him when he leaves the unit for which he is responsible. *American Multi-Lert Corp.*



Digital indicator (RA-3)

A compact, solid state digital indicator gives quick and legible weight readings with strain-gauge scales. The Model 8130 has an incandescent filament type indication with segmented digits. The unit is 17 inches wide and 3½ inches high. It can interface with data processing and print-out devices, being suited for recording the weights of railcars and trucks. It is capable of remote sensing, digital tare input and external programming. *Toledo Scale & Systems.*

Lift trucks (RA-4)

A new series of heavy lift trucks featuring an operator's seat situated at a 45-degree angle to make visibility to the rear easier during backing has been designated CY-525/-700. The three trucks have ratings of 52,500, 62,500 and 70,000 lb, all at 48-inch load

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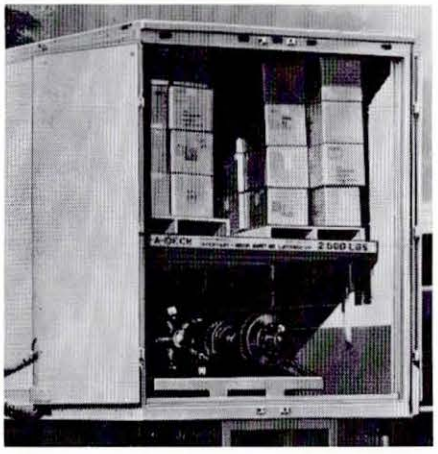
centers. Each may be equipped with a container handling attachment to lift and stack 20- to 40-foot containers three high. The conversion from standard forks to the container handling attachment can be done rapidly without special tools. Each truck is powered by a six-cylinder diesel engine. Wheelbase is 155 inches. *Clark Equipment Co.*

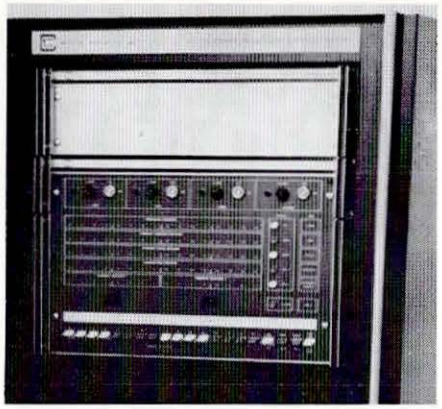
Car unloaders (RA-5)

Two Mimco unloaders which utilize the pneumatic connector method have been developed for efficient, economical unloading of covered hopper cars. Model 75 unloads twin-hopper cars; Model 85 is for Center Flow cars. Adapters make it possible to switch from one configuration of car to the other. The basic unit weighs 175 pounds and is "streamlined" for easy maintenance and cleaning. The unit can be tailored to fit virtually any unloading installation. Assembly is of high-strength steel with Nylatron-bushed moving parts to assure long service. Manual hook-up is eliminated and materials are protected from moisture and dirt during unloading while spillage is minimized. *Materials in Motion Co.*



Decking system (RA-6)

The Up-A-Deck double decking system for trailers and containers increases payload area for handling lightweight and unstackable commodities. A series of pallet-sized loading decks, each 46 in. long and 90 in. wide, have individual capacities of 2500 pounds. Sections are stored at roof line of the vehicle and can be lowered individually to selected loading positions on hardware incorporated in the sidewall structure for maximum strength. One man can easily prepare a vehicle with double decks in a matter of minutes. Latch straps free the securing strips and move the deck sections into position. Counterbalance springs assist in raising or lowering each. *Fruehauf Division.*



Communications concentrator (RA-7)

The CC-71 communications concentrator controls simultaneous communications between a large number of regionally located remote computer terminals and a central computer, and concentrates this communication into a single high-speed line. In the same geographic area as the remote terminals, the CC-71 communicates with the terminals over low-speed communications lines and with the central computer over a high-speed line.

The CC-71 provides full line control and multiplexing, terminal polling, code conversion, error control and message assembly/disassembly.

The CC-71 handles both full and half duplex communications lines at all standard transmission rates. Communication between the terminals and the CC-71 is generally low-speed at rates of 110, 150, or 300 bps. The transmission line connecting the CC-71 to the central computer would operate at 1,800, 2,400, 3,600, 4,800, 9,600 bps. The CC-71 can also communicate with terminals at these higher rates. *Computer Communications Inc.*

Printer subsets (RA-8)

Teletypewriter subsets are data-oriented communications systems building blocks. Completely transistorized, these assemblies feature plug-in modular design of individual components, and offer full compatibility with Bell System "43A," "43B" and "130B" equipment or with CCITT Channels in full duplex, half duplex, simplex receive, or simplex transmit configurations. In addition, use of the latest design techniques and quality components throughout, assures stable, reliable operation over a wide range of environmental and operating conditions.

The QTTY-130FD teletypewriter subset permits full duplex operation. This assembly includes: QT-30-1 frequency shift tone transmitter, QTL-8 teletypewriter transmitter loop module, QTL-7 teletypewriter receiver loop module and QR-30 frequency shift tone receiver. *Quindar Electronics Inc.*

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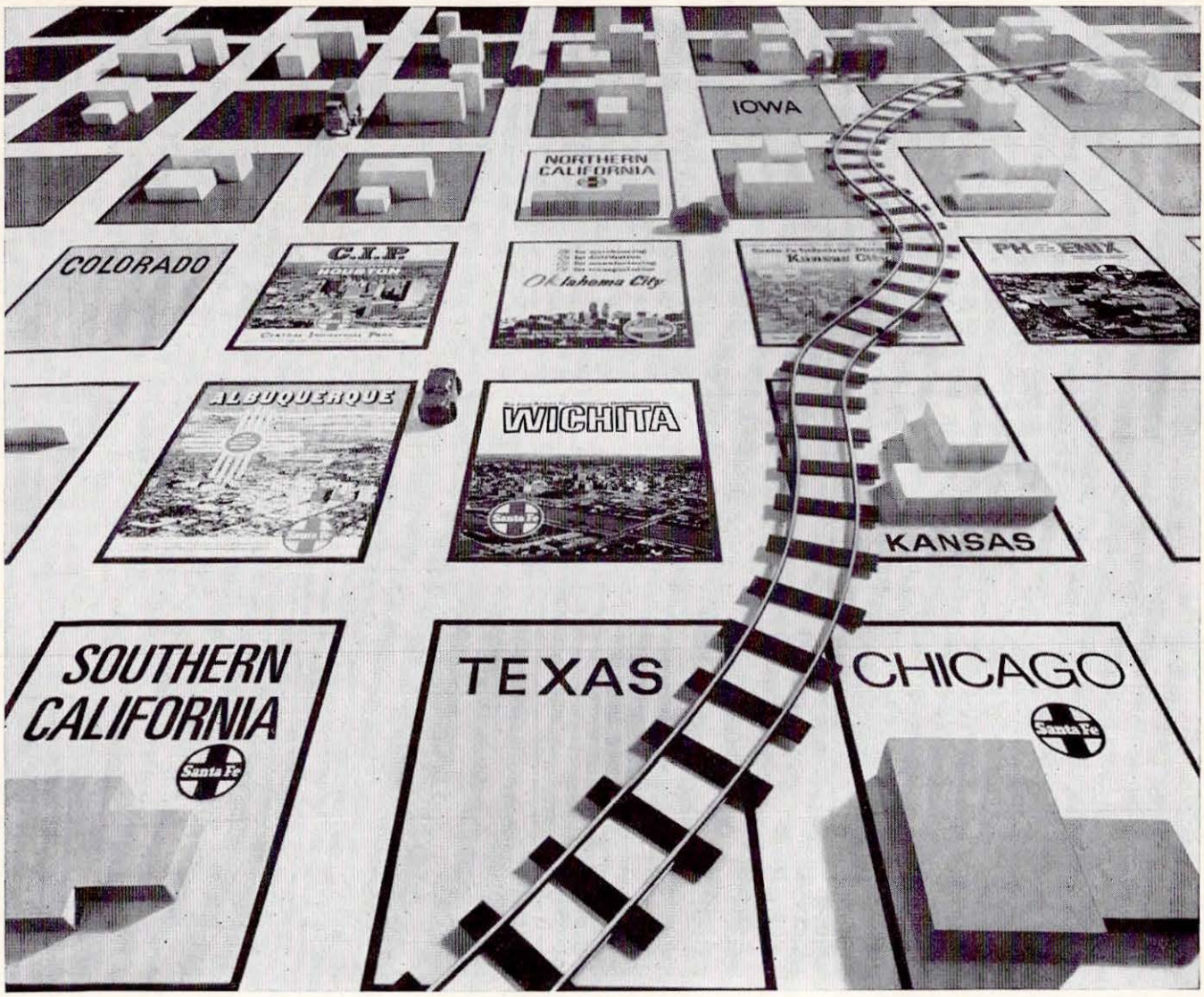

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Circle 14 on coupon page 33

N&W's AGGRESSIVE ID ROLE DATES FROM '64 MERGER

(Continued from page 28)
concerned spent $177 million putting up the facilities involved, and much of that went for structural materials and heavy machinery that moved by rail.

The reason N&W moved heavily into industrial development so recently, Savely pointed out, was that 1964 was the year it really became a major carrier of "manufactures and miscellaneous," with the acquisition by merger of the Nickel Plate and the Wabash. That year, also, as part of the merger terms, saw the N&W released from the overlordship of the Pennsy, which had been happy to have N&W simply fall off the eastern slope of the Alleghenies with long coal drags, and pull the empties back up to the Pocahontas coal tipples.

The one great plus N&W scouts think they offer their prospects is thorough preparation for all the questions the prospect wants to have answered. Savely believes that most companies put off expensive decisions like investing in a new plant as long as possible—an observation curiously echoing what the late Charles F. Hardy of ACF said about the railroads themselves: "They decide tomorrow to buy what they need today, and want it delivered yesterday."

● **Ready with the answers.** When DeSoto, Inc., the paint-making company of Sears, Roebuck, came to inspect the N&W site outside Columbus on which it is now settled, the engineer in charge had a two-page list of questions: Process water, sewer lines, fire protection, electric power, gas, transportation for workers, even how high a smokestack was allowed in the area. (Sometimes odorous discharges or particulate matter can be distributed so widely by a high-enough stack that no one complains.)

The N&W team had all the answers ready. Some things, like the water and sewer lines and the layout of truck roads, were provided by the railway itself. Others had been negotiated with the utilities and the authorities. Some were just a matter of gathering available data. But nothing had to be left for another visit.

● **The eye of the beholder.** Discovery Park, to the untutored eye, is one of the drabbest spots in this fair land. It can be approached from the Alum Creek exit of I-70, past the city dump and the rusting remains of several hundreds of automobiles. Or one can come out through the dreariest part of Columbus and cross a viaduct over several thousand empty N&W coal hoppers. The undeveloped areas are tangles of dwarf sumac, Queen Anne's lace and chicory.

J. V. Rast, N&W sales manager in Columbus, is surprised and a little hurt that the visitor doesn't see the beauty of the scene. Rast's gaze focuses on the line of shiny N&W box cars beside DeSoto's factory, and the string of squat tank cars beside the plant of the chemical division of Georgia-Pacific.

Location of industrial parks handy to major highways is not an accident. The railroad has come to enough of a truce with its highway competitors to realize that most consumer goods are going to move by truck after they are packaged for retail sale.The 600 acres at Chesterton, Inc., was acquired adjoining the Indiana Toll Road. Montpelier, Ohio, a 300-acre tract, is at the end of the Ohio Turnpike. Westlake-Avon's 850 acres, between Cleveland and Lorain, touches a new highway being built between those cities and connecting with I-80.

The four Detroit tracts are west of the city in the area of Willow Run Airport; the nearly 1200 acres near St. Louis are well to the west of the city's center, and the 700 acres at Portsmouth, Va., are also on the flatlands west of the chopped-up Hampton Roads region. In general, older properties, many of them once intended for railroad use, are close in. The 4,000 acres acquired in the last four or five years have been chosen with truck accessibility in mind.

More than rail considerations

No industrial park of generous size can be built without some consideration for non-traffic use. The workers who will some day, N&W hopes, work in Westlake-Avon will enjoy the services of enough filling stations, beauty parlors, restaurants, taverns and branch banks to fill 12 acres. That much space has been set aside for such amenities.

● **Serendipity in Indiana.** There's one property administered by the industrial development department that isn't industrial at all. Rather it represents a bit of serendipity consequent on the post-World War II shift from steam to diesel motive power. In what became the heart of Hammond, Ind., the Nickel Plate once owned a plant for preparing the sand that gave the wheels of a steam locomotive traction. The plant was surrounded by 75 acres of suitable sand. When N&W acquired Nickel Plate it went into partnership with a real estate company, and is now the landlord of an apartment-and-commercial development.

Industrial development, as the country's population grows and moves about, involves the railroad directly as well as through the sale of properties. Rack cars have largely retrieved automobile haul-away business from the over-the-road haulers; N&W has one such facility at Winston-Salem, N.C., which covers 75 acres. Automobiles roll into the tract by the trainload; the newly fashionable gaudy shades, even of commercial vehicles, make the yard look from the airliner like a mosaic floor laid by a demented tilesetter.

In addition to disposing of its own properties, the industrial development department, since the two smaller roads came under N&W's wing through its holding company, Dereco, has been trying to coach Delaware & Hudson and Erie Lackawanna in the ID art. It works also with state, municipal and local development agencies. These range from sophisticated ones like Virginia Electric Power Co. down to wistful little towns that daydream of some big new taxpayer, they don't know exactly who, that will help out with the school budget and not make too much noise or smoke.

Vepco has its own development crew, as large as N&W's or larger, and makes location and profitability studies as thorough as the railroad's. The two just need to know where and how they can reinforce each other's efforts. The little town needs to be briefed on zoning and other legal necessities, coaxed into a realistic survey of just what it can offer, and guided in the creation of an atmosphere an industrial prospect will find congenial.

As was noted earlier, industrial development for N&W was largely a product of its enlargement by taking in Nickel Plate and Wabash. For the country at large, Savely observes, it is largely a creation of the last 25 years, or less.

The approach of economic maturity got a setback in 1929 from which it hadn't fully recovered when World War II came along to distort priorities, so it wasn't until 1947 that progress in that direction was resumed.

When this country's railroads were stretching to their greatest mileage, a railroad was built into a coal field to bring out coal, or into a forest to bring out lumber. The first efforts to make two carloads grow where one grew before were directed not at industry, but at agriculture. Savely and Cox recognize themselves as the spiritual descendants of the farm agents who used to give farmers purebred boar pigs or bull calves as sires, or Rhode Island Red cockerels to upgrade the settin's of eggs farm wives exchanged. It is unlikely those progenitors would recognize *them.* ■

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AUGUST TRAFFIC POLL

1. Were your operations affected by the railroad strike?
   Yes. . . . . .81 No. 23
   If so, to what extent?
   See accompanying text for answers.

2. In your view, were the disruptions caused by the strike justified by the issues at stake?
   Yes. . . . . .61 No. 43

3. Will the railroad(s) serving you suffer any net loss of your traffic as a result of the strike?
   Yes. . . . . .36 No. 68

4. If your answer to question 3 is "No," please explain:
   See accompanying text for answers.

Shippers backed the strike-bound lines

United Transportation Union leaders chose well when they ordered strikes against certain major railroads across the county in mid-July. They chose well, that is, in terms of affecting adversely the business of some of the nation's biggest shippers.

That conclusion seems justified by the results of the Railway Age August Traffic Poll. Approximately 80% of Poll respondents said their operation had been affected, in various ways, by the strikes.

Most respondents, praising the railroads for taking a firm stand, thought the strike-caused business disruptions were justified, insofar as the railroads were concerned, by the issues at stake. Especially singled out as a justification for the firm stand of the railroads was what many respondents described as the need for changing the "antiquated work rules under which the railroads suffer." A majority of respondents who said the disruptions were not justified indicated they had so voted not because of the railroad position but because they felt the union had to be faulted for its opposition to certain needed changes.

Many industrial traffic managers diverted their shipments to trucks during the strikes. However, most shippers who diverted traffic to trucks emphasized that the diversion was only for the duration of the walkouts.

Here is a sampling of comments from responses to the Poll:

"We firmly believe that the railroads were justified. We believe it is necessary for any corporation to operate by the most efficient means consistent with a quality product and service to customers. The railroads needed these changes in their work rules to furnish reasonable and satisfactory service to all of their customers, not only at this time, but in future years. We were able to hold our orders and delay shipment until the strike ended, therefore the railroads serving us did not suffer as a result of the strike.

"We firmly believe that the issues involved justified the railroads in maintaining their position and, as far as we are concerned, we were able then —and would in the future—back them in a situation of this nature."—*Henry M. Karel, director of distribution, Cleo Wrap Corp., Memphis, Tenn.*

"There was loss of revenue to those lines which were out on strike, as that business then moved by alternate means: either other roads that were operating or alternate modes of transportation.

"As to future traffic, it is not anticipated that the strike per se will have any material affect, On the other hand, it is entirely possible that the net gain by changing the work rules will result in opportunities for the railroads to gain additional volume. Transportation costs and service are the criteria which determine how the products will move."—*D. J. Osbjornson, director, physical distribution, Lanb-Weston, Inc., Portland, Ore.*

"This time, when the railroads elected not to lock out, those which were struck by the UTU had the option of making an individual settlement or of taking the economic consequences of standing firm.

"Because the issues at stake were considerable, those that stood firm should have shippers' support, because ultimately this will react to the shippers' advantage. The ones that did not, regardless of the consequences, deserve less than wholehearted shippers' support in the future.

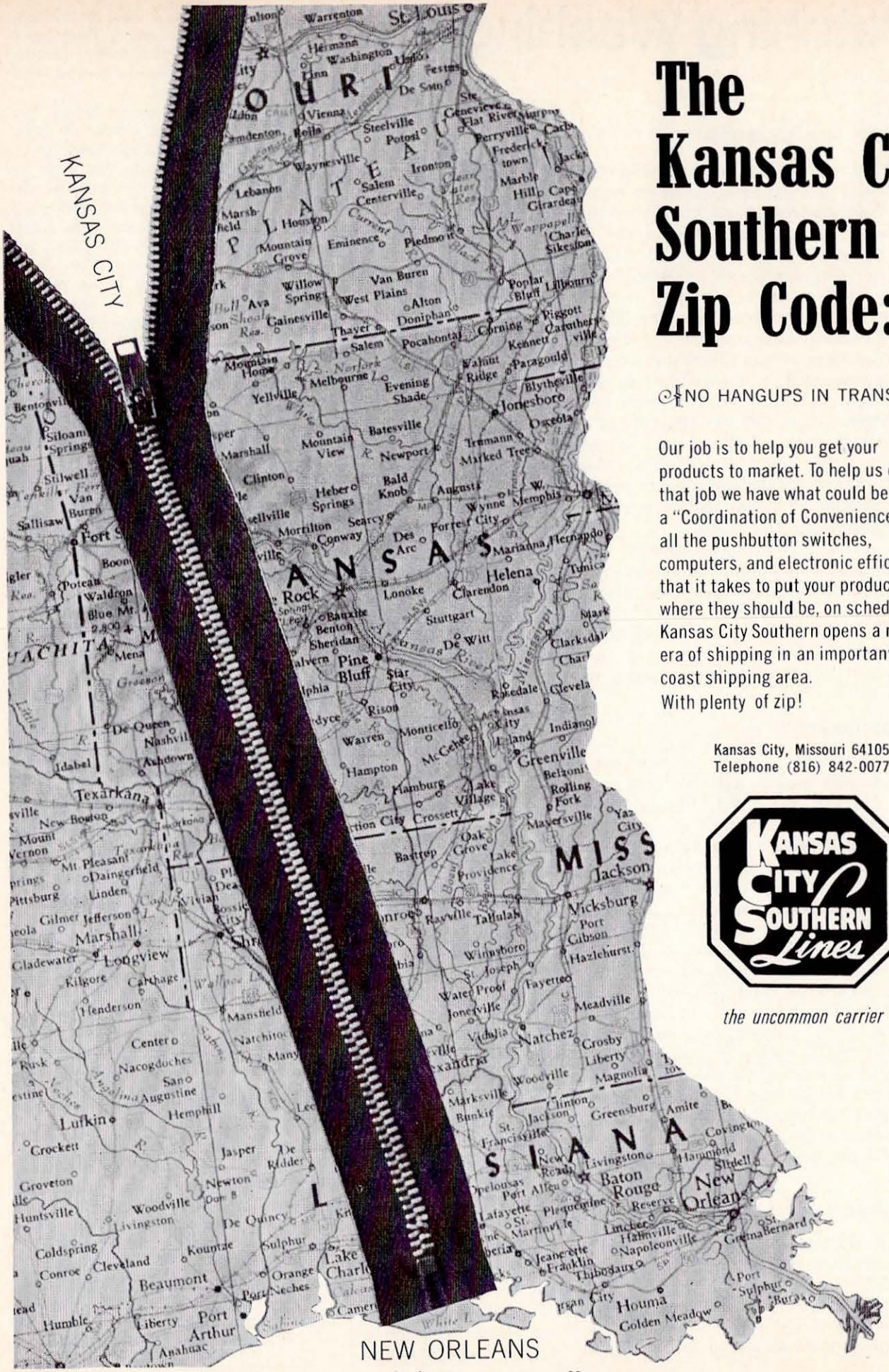
"Despite the reluctance of industrial management to support the rail industry in the past, there were very few of our counterparts who did not support the railroad position in this case. The financial plight of the carriers is so closely interwoven with the competitive market situation of industry that we, in industry are, I hope, beginning to realize that the railroads need shippers' support—in matters other than rate increases—if both of our economic futures are to be as successful or better than in the past."—*H. R. Large, general traffic manager, American Cyanamid Co., Wayne, N.J.*

"We say the strike-caused disruptions were justified, but our answer must be qualified. If the carriers had adhered 100% to the desired objectives, then the sizeable monetary losses could possibly be justified . . . because of the over-all benefit that would accrue through much improved service, greater efficiencies and possibly, in time, lower costs for the services rendered to the public. These were and continue to be issues that have to be faced somewhere along the line. In fact, this should have been done years ago, at the time of dieselization, if railroads are to survive as private entities.

"This factor is still in question, as we are not at all sure the rail lines will continue as private entities. Knowing that somewhere along the line one has to face up to such disruptions to obtain desired objectives, one can say (to obtain benefits hoped for), the method—namely, the strike acceptance—is to that extent a justified means to an end.

"It naturally follows that inasmuch as we feel the carriers' position to have been justified, there would be no loss of traffic during a strike period. That is, diversion of freight that would not again be returned to them. There is loss of revenue not earned, because cars had to move via different routes, This traffic has, in our case, already been restored due to our allocation practices.

"We feel that carriers had no alternative but to face these issues, in order to salvage something on work-rule



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Circle 14 on coupon page 33

Watching Washington

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MEASURE FOR MEASURE

Somewhat overlooked in the wake of the President's new economic policies was another Administration recommendation of potentially great significance to the railroad industry. This was the formal proposal to Congress for a systematic U.S. changeover to the metric system over a 10-year period. Commerce Secretary Maurice H. Stans specifically excluded the standard U.S. track gauge from the changeover program, commenting: "It would be preposterous ever to tear up all our railroad tracks just to relate them to some round-number metric gauge—we say the rule of reason must apply in a national adoption of the metric system."

On the other hand, specifications for new locomotives and freight cars would be adjusted to conform to metric measurements during the changeover period, with a retooling cost unforeseeable at this time.

The entire cost to U.S. industry of going metric has been estimated at $50 billion. Secretary Stans' report and recommendation to Congress make the point that the real question is not what the cost of metric changeover would be, but whether it would cost more to change by a national plan or by private initiative. His answer is that a systematically-imposed and Federally-coordinated plan would cost less.

RAIL BRITANNIA

British Railways sent a two-man team into Washington early this month, and they did very well, indeed. Senator Vance Hartke (D.-Ind.), chairman of the Senate Surface Transportation Subcommittee, gave them a dinner party at his home, Amtrak President Roger Lewis had lunch with them, and FRA Administrator-designate John Ingram and former Administrator A. Scheffer Lang, among others, turned out for luncheon and a slide-show presentation on BR's 155-mph Advanced Passenger Train (APT) at the British Embassy. The visitors—BR Director of Research Laboratories Alan Wickens and Director of Research Marketing Paul Caultley—got high marks for a soft-sell approach. In the background, but not too far, were various Budd Co. officials. Budd, though now out of the car-building business as a prime contractor, still holds APT rights in this country.

The BR team will be back in Washington this fall to brief the Senate Commerce Committee on British rail technology.

Quipped Wickens: "We have found that for every mile faster BR passenger trains go, we have a 1% increase in revenue—but obviously I don't want to extrapolate this fact too far."

UP WILLING TO SELL ICI STOCK, IF—

Union Pacific has told the Interstate Commerce Commission that "under certain conditions" it would sell its holdings of 15% of the common stock of Illinois Central Industries. UP said it would divest its stock over 10 years if required by ICC for approval of UP's plan to acquire the Rock Island, and for approval of the merger plans of Illinois Central and GM&O.

changes. I might add that, in my candid opinion, carriers should have negotiated somewhat differently, sticking with the idea of a total lockout as soon as one road was struck.

"We as a working people have to get around to that point where we once again perform a full day's work for a full day's pay. We must first have in mind the interest of the success and profit of the companies for which we work and be alert to instances when they may need our added efforts to keep them as viable industries. It is true these loyalties are to be tied in with sound leadership and that management must also recognize its responsibility toward the worker, if it expects to enjoy his loyalties. To be competitve in the vigorous interchange of today's business, we must practice efficiency and expediency. To do otherwise is to court financial disaster, and this is what is happening, generally, in railroad circles today.

"Once private trucking is introduced to satisfy a cost and service problem, it immediately sets up a barrier for a set time period before an opportunity is again present to recover the traffic. Those carriers recognizing these conditions are, in my opinion, the ones that took the strike, even though . . . this might not have been the turn to take . . . The fact remains, they did stand fast."—*A. E. Leitherer, vice president-traffic, Allied Mills, Inc., Chicago.*

"As a result of the selective railroad strikes it was necessary for us to divert considerable tonnage from some of the 14 branch locations we operate to serve our domestic trade. In addition, a number of piggyback routings had to be diverted to motor carrier for fear of a service disruption.

"As a matter of fact, it is our feeling that the railroads have procrastinated much too long on facing the basic issue of working rules. While some effort was made to bring before the public the dollar impact of work-rule restrictions, the results would have been more effective if a relationship had been made to a 'pay dollars per hour' measure, with which the man on the street can more readily identify. After all, the man on the street bears the burden of the increase in the cost."—*James D. Mitchell, assistant general traffic and transportation manager, Coca-Cola USA.*

"We have been very much upset with these constant threats and actual work stoppages in the railroad industry. I am very much concerned that more progress has not been made in the acceptance of modern work practices by the unions. I seriously question how much was gained by the rail carriers. It is very evident that the adamant

(Continued on page 51)

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Third day arrival at Dallas-Ft. Worth

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Here's another special transcontinental service from Frisco in cooperation with Quanah, Acme and Pacific, Seaboard Coast Line and Santa Fe railroads. The through-train schedule bypasses most classification yards along the way and pre-grouping of cars minimizes switching time. It's another time saving service of the dependable one. For details contact your local Frisco Sales Office. St. Louis-San Francisco Ry. Co., General Offices 906 Olive St., St. Louis, Mo. 63101.

FRISCO

We're a *going* railroad.

A message to the business community from the railroad, trucking and water carrier industries.

Transportation has problems. And when transportation has problems, America has problems... shippers, consumers, everybody.

That's not exactly news.

What is news, however, is that the three modes of surface transportation—rail, truck and water—are now united behind a program designed to solve many of those problems.

For too many years, our three industries have spent too much time and too much energy fighting with each other. We probably even developed a sort of Pavlovian reaction...when one mode rang the bell with an idea or a proposal, the other two automatically got into fighting position.

The result: No one really benefited.

Now there is an opportunity for transportation—and for America—to benefit.

On July 28, Senator Vance Hartke of Indiana and Rep. Brock Adams of Washington introduced corresponding legislation (S.2362 and H.R. 10146) in the U.S. Senate and U.S. House of Representatives, entitled the "Surface Transportation Act of 1971."

Railroads, trucks and water carriers support this program...wholeheartedly and publicly. In doing so, each has had to yield on "pet" ideas or has revised long-standing positions.

The "Surface Transportation Act of 1971" would—

- Provide for expedited abandonment of non-productive rail facilities.
- Restore the investment tax credit and amend present amortization provisions.
- Extend economic regulation to truck transport of livestock and certain processed agricultural products.
- Establish a government agency, similar to the successful Reconstruction Finance Corporation of the depression days, to guarantee necessary transportation service for the public.
- Require the Interstate Commerce Commission to develop criteria to determine the revenue needs of carriers on an expedited and more current and realistic basis.
- Eliminate discriminatory taxation of carrier property by states.
- Require publication of rates for transportation of dry bulk commodities by water carrier.
- Stipulate that states use at least 5% of their Highway Trust Fund allocations for grade crossing protection and extend the program to non-Federal aid roads.
- Direct that the budget of the Interstate Commerce Commission be submitted directly to Congress, of which it is an arm.

Admittedly, this is a big program. But the problems are big, too. It is a time for big thinking.

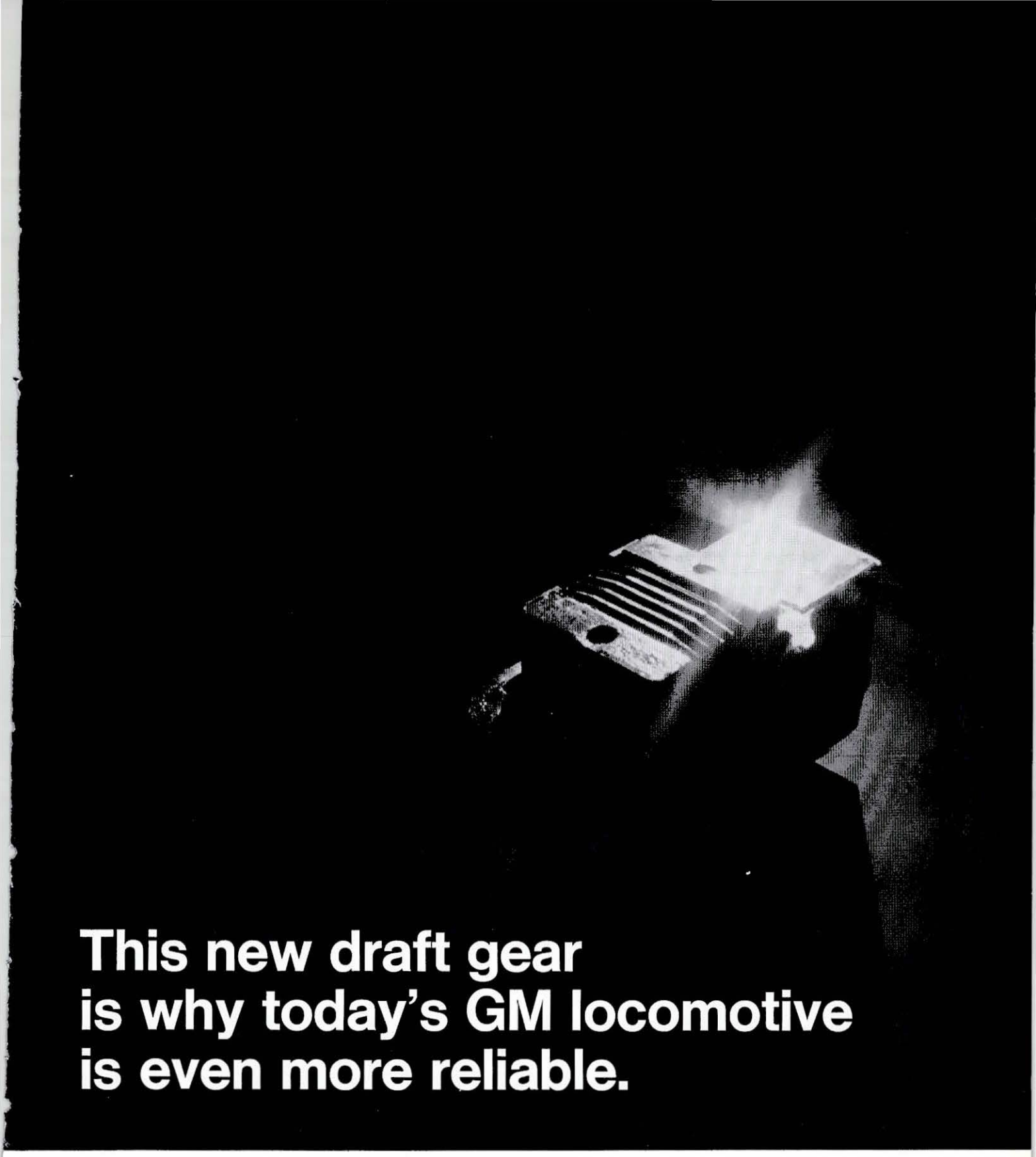
We sincerely believe that the kind of cooperation and unity which the nation's railroads, trucks and water carriers have achieved in supporting this program can open up a new era—for transportation and for America.

Stephen Ailes, President
Association of American Railroads

William A. Bresnahan, President
American Trucking Associations

John A. Creedy, President
Water Transport Association

Circle 17 on coupon page 33



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It will give you greatly extended service life. Extensive laboratory and field tests led to two improvements. First, a new pad in compression, rather than shear, absorbs over 500,000,000 foot pounds of energy. It's made of steel and a new bonded rubber. Second, a tougher through-hardened coupler pin lasts twice as long as the old one.

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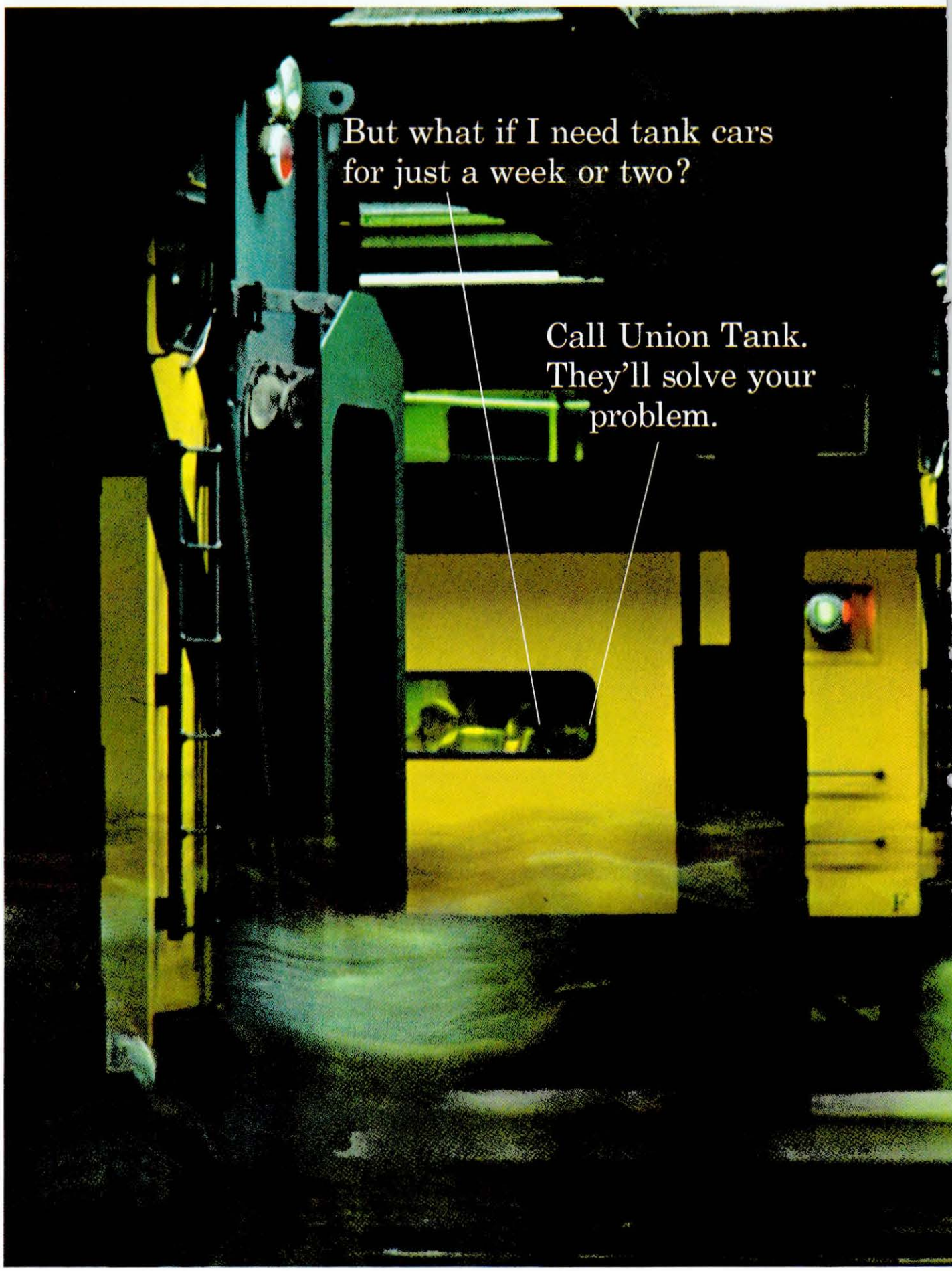
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The advantages of design and manufacturing superiority are also yours with Union Tank. From general purpose, special design or the advanced Changeable-Cars®, you can count on dependable service at all times.

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Auto-Train: 700,000 shares sold

Operation will start with two sets of trains

The Auto-Train Corp., which plans to start ferrying automobiles and their passengers between Virginia and Florida this fall (RA, June 14, p. 36), became a public company on July 15. On that day 700,000 shares of common stock were sold at $10 per share—a task accomplished in one and one-half hours by Executive Securities Corp. of Miami, Fla., and an underwriting syndicate that included 17 investment houses across the nation.

Auto-Train will start business with two sets of trains, each consisting of two diesel locomotives, 12 enclosed bi-level auto carriers, five bi-level coach lounge cars (with an aggregate seating capacity of 350), and a steam generator car.

Santa Fe, according to John S. Reed, its president and chief executive officer, has completed the sale of ten bi-level dome lounge cars to Auto-Train, providing the firm with the passenger-carrying equipment for inauguration of its new service. Interiors of the ten cars are to be rearranged and redecorated extensively prior to being put into operation on the East Coast

"The newly purchased Santa Fe dome passenger cars are being modified to conform with our objective of bringing a new environmental approach to passenger rail service," explains Eugene Garfield, Auto-Train president. "Detailed attention will be paid to the passengers' physical and esthetic comfort from the use of specially designed reclining seats to creative interior decorating, utilizing color and texture. Passengers will have the option of being served at their seats by stewardesses or utilizing the lounge areas on the lower level. Stewardesses are to be specially trained to provide a full range of passenger services from the serving of meals to child care."

Auto-Train's operations-vice president, Kenneth L. Howes, described progress to date in a paper presented at the ASCE-ASME National Transportation Engineering Conference in Seattle July 28. He said consulting engineers are now working on track and terminal layouts "which will be practical in design but at the same time offer innovations never before seen in this country or any other country for that matter." He did not elaborate.

Howes noted that the company had entered into a 15-year operating agreement with the Seaboard Coast Line and the Richmond, Fredericksburg & Potomac for the operation of Auto-Trains over those carriers' rights of way between Alexandria, Va., and Sanford, Fla. The agreement requires that SCL and RF&P establish schedules "to afford optimum convenience and attractiveness to Auto-Train passengers, provide inspection and running maintenance for all elements of the Auto-Train in such service, and provide overall maintenance for Auto-Train locomotives. At the company's option, SCL and RF&P may act as agents for the company to purchase fuel, lubricants, parts and supplies. Also, SCL and RF&P are required to provide train switching services en route, and furnish replacement locomotives in emergencies," explained Howes.

(It had been reported earlier that the participating railroads would receive $1.20 for every $1 of out-of-pocket costs, plus a percentage of profits during the 15 years of the agreement.)

Auto-Train will provide point to point service between Alexandria, Va., and Sanford, Fla. Terminals are to be located adjacent to or near U. S. Routes I-95 in Virginia and I-4 in Florida. The Sanford terminal was chosen because it is 37 miles from the new Walt Disney World, which is scheduled to open in October at about the time Auto-Train is scheduled to inaugurate its service.

Howes said the one-way fare will be "under $200."

"This will cover transportation of the automobile and all occupant passengers that the auto is designed to hold," he explained. "It is expected that Auto-Train service will appeal primarily to persons, especially families, who would otherwise travel by automobile between Florida and the Northeastern States."

Concluded Howes: "Today, the Auto-Train Corp. is a reality. Tomorrow, as a going public concern, we anticipate being a key factor in bringing the public back to long distance rail passenger service.

"In the future, we anticipate expanding our service to other routes and developing more sophisticated equipment than is presently available and economically feasible for our service. This equipment will incorporate loading and unloading advances and the ability to make intermediate stops along our routes."

This is where the big growth is — Southern's "greener pastures."

Over $625 million invested in 1970 alone.

734 new projects, 47,400 jobs were created between 1968-70. All in the 364 "greener-pastures" counties served by Southern Railway. In 1971, nurtured by the South's sunny business climate, new investments by industry continue the upward trend.

We're helping. By being service-oriented. By supplying the answers businessmen need about locating in the South. By having a 22,000-acre land bank of prime property. But mostly, by offering our reliable, fast, low-cost brand of freight service. From a highly computerized, electronically guided rail system run by people eager and able to help you grow. *By helping you squeeze waste out of distribution.*

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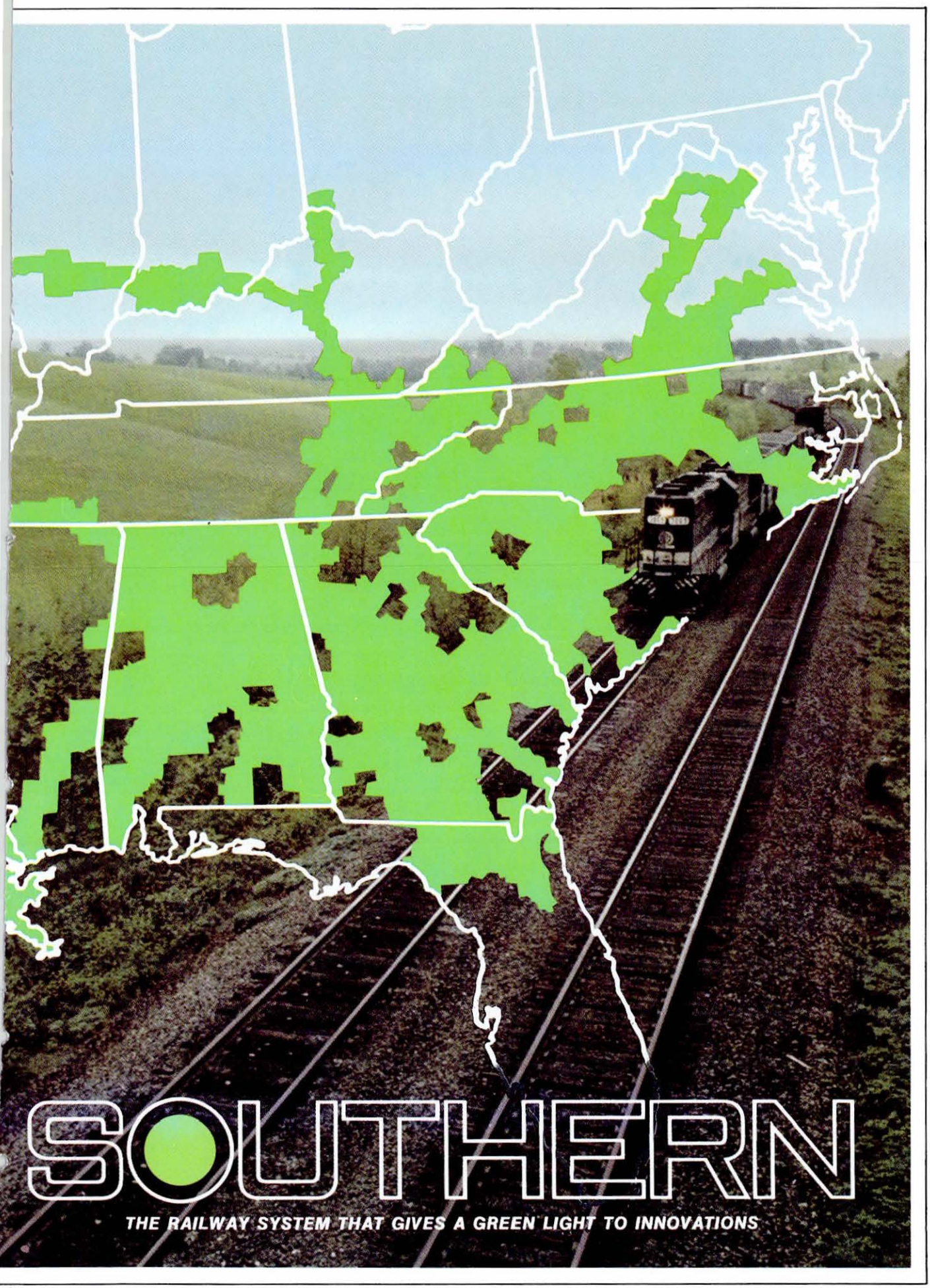
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When you come to Griffin for wheels, you're on the main line. Because we're all wheel specialists. From our president to the men in the plants and the shipping departments. Including a trouble-shooting team that gets the facts on every service problem involving wheels. (We learned years ago that wheels often get blamed when other equipment fails, but we never quit checking.)
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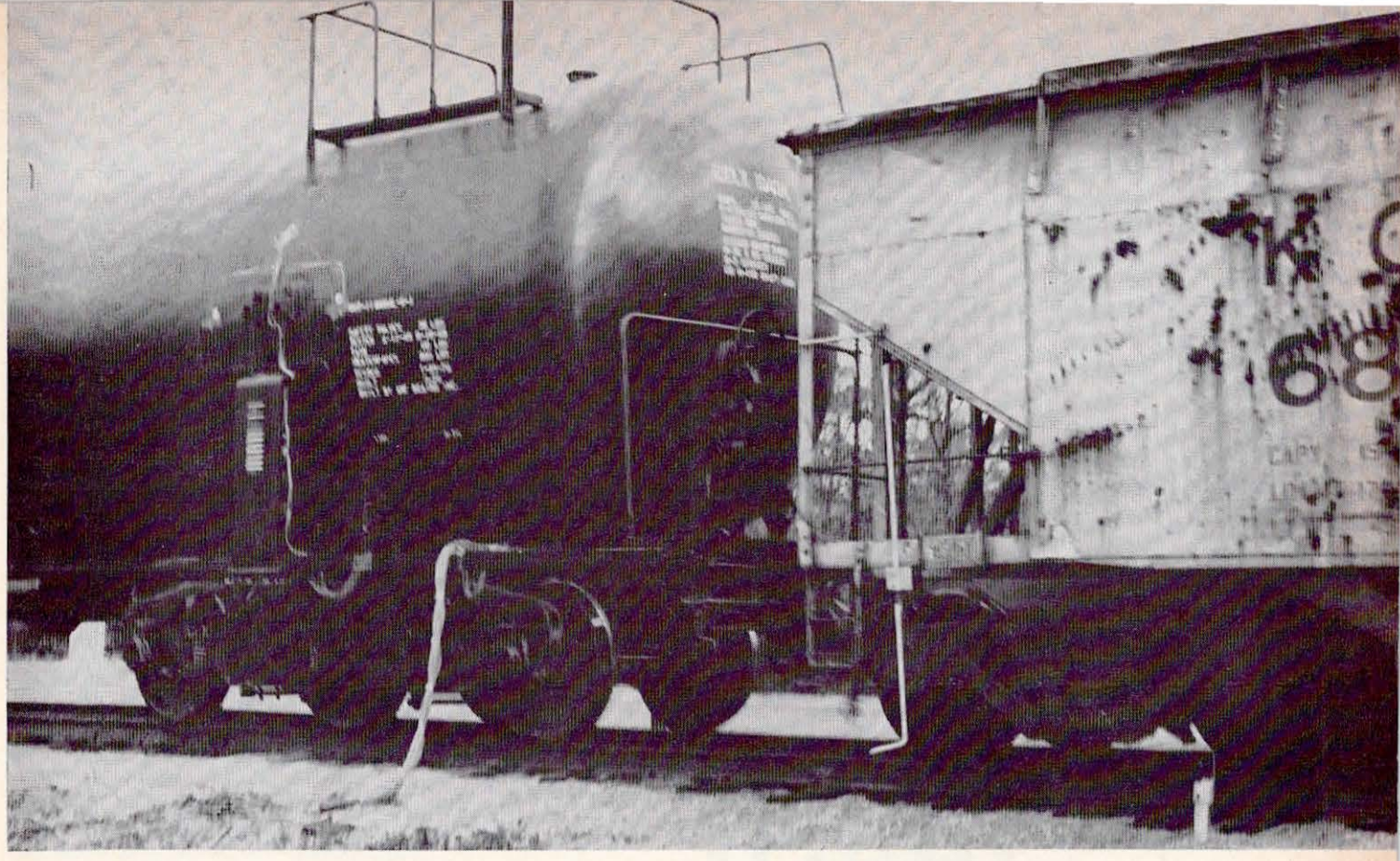

IMPACT TESTING: A tank car is shown getting an 8-mph jolt from a hopper car on AMF Beaird's Shreveport test track.

How to build a better tank car

It has become a common sight along a special test track in Shreveport, La., for research engineers to make last-minute checks on electronic recording devices, then scurry to a nearby flat car where a videotape camera is already running to record a startling—and noisy—event.

Meanwhile, up the track a short distance from where the camera is focused in, a locomotive engineer's walkie-talkie crackles an all-clear. He throws the engine's throttle, pushing four 70-ton hopper cars to a peak speed of 8 mph. Bearing down on a braked and instrument-laden tank car, the hoppers trip trackside switches and then slam violently into the tanker's dynamometer coupler with a force of 800,000 pounds.

This oft-repeated scene is part of an enthusiastic series of impact tests on new tank cars conducted by the Railroad Products engineering staff of the large AMF Beaird manufacturing plant in Shreveport. A relative newcomer to the carbuilding field, AMF Beaird built its first tank for tank cars about a dozen years ago. Since then, this major metal fabricator has produced over 10,000 tanks—mostly for North American Car Corp. assembly plants.

In late 1968, the plant progressed on to assembling tank cars in addition to fabricating the tanks. Aside from the tanks and tank cars, the plant (built in 1964 at a cost of $9.2 million) produces a wide assortment of finished products, ranging from LP-gas storage tanks to test chambers for NASA, to industrial and marine silencers. Covered hopper cars, too, have been constructed at the plant in recent years.

• **Full-scale testing.** About six months after embarking upon its initial assembly run of tank cars, AMF Beaird began conducting full-scale impact tests on tank cars which would eventually go into service with DuPont. Next on the schedule were tests in February 1971 on the largest aluminum car ever built by the company—a 35,000-gallon tanker for Celtran Corp. The Association of American Railroads and the U.S. Department of Transportation dictate testing programs that must be carried out by tank car manufacturers. But, AMF Baird's program delves even deeper.

"Analytical and theoretical work can go just so far—especially on cars this size," says Don Carpenter, manager of the Railroad Products engineering staff. "Then we have to go to either a model or a prototype car and do actual testing.

"Operating and performance conditions are usually specified by the customer," adds Carpenter, "and the process of product design extends to this. We can analyze specifications for a certain car and closely determine what it takes to do the job. But as complexity increases, so does the need for tests."

• **A long equipment list.** Complexity on AMF Beaird's drawing boards carries through to the impact test which, at first glance, appears to be a simple operation. Aside from numerous planning stages, the AMF Beaird staff utilizes a long list of hardware and instrumentation to implement a complete testing program. Equipment for full-scale testing includes, aside from the hopper and tank cars:

— Videotape apparatus, which provides "instant replay" capability during testing, and a permanent record of events for the customer.

— Numerous strain gauges attached throughout the test car.

— Dynamometer coupler on the struck test car to measure all impact forces.

— Trackside strain recorder start switch, tripped by a protruding rod on the lead striking hopper car.

— A pair of speed-sensing switches,

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Has made 19 assignments for

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INTERNATIONAL CABOOSES

Many railroads have recognized International *quality* over our 20-year history. Consistent, repeat orders from Burlington Northern is one example. Others? Chicago, Rock Island & Pacific placed 8 orders for 212 caboose cars and Gulf, Mobile and Ohio 10 orders for 64 cabooses. We appreciate this evidence of confidence and pledge ourselves to continue to build safer, more comfortable, more serviceable cars as the years go on.

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MEMBER RPI

Circle 22 on coupon page 33

activated by the same protruding rod, to register the speed of the hopper cars.

— Walkie-talkie radios for communication between ground personnel and train crews.

— Brittle coating for visual indications of strain on critical structural members of the tank car.

— Hundreds of feet of instrumentation leads.

— A "mobile instrumentation laboratory" for recording all types of strains encountered during impact testing.

A full complement of engineering personnel and a train crew are needed for each of the tests.

"A number of factors make the impact tests conducted by AMF Beaird an integral part of tank car production," says Ron Loyd, senior engineer of the Railway Products engineering staff. "First, of course, is the necessity of meeting specifications of the AAR and DOT for new designs.

"Secondly," Loyd continues, "extensive data collected from the tests—we have always surpassed minimum test requirements—confirms soundness of design. We pass this collected data on to the customer. Third, the size of the car alone calls for a test program, and fourth, impact tests reveal where stresses might be higher than desirable and provide an opportunity to evaluate alternative designs when needed."

• **Help from a model.** Railroad Products personnel don't always take their computations from desk top to trackside. Instead, a unique tank car model designed and fabricated at the Shreveport plant is sometimes used as a stepping stone on the road to full-scale testing. "It's built in one-quarter-inch scale to a 32,000-gallon car," says Carpenter of the model, "thus giving us the potential to more quickly develop and test variations in design."

The model tank car is presently designed for transportation of LP-gas. Drilling mud is used to fill the model, duplicating in scale the load strain of LP-gas. Reduction in size, test engineers discovered, has little bearing on the model's value as an effective device. Strain instrumentation is internally installed. When the test stage is reached, as many as 200 external gauges alone are available to carry data from every part of the scale car. With future modifications. the model can be used with numerous loading products to simulate a variety of tank-car-product loads.

"The results of our test programs are not limited to the specific test cars," says James Richy, division vice president of the Railroad Products profit center, "but are all part of AMF Beaird's continuing development of better tank car structures." ■

TRAFFIC POLL (Continued from page 40)

attitude of contract labor on the railroads is not helping to solve the overall transportation problems in the United States.

"We had plants and mines located on railroads which had work stoppages in which some operations had to be curtailed. . . .

"Over the past two years we have been faced with one railroad crisis after another. These have been most disruptive. Not due to this last work stoppage alone, but due to the series of work stoppages and threats of stoppages, we have, for the first time, embarked upon a program of private carriage. This will be rapidly expanded to cover the majority of shipping and receiving locations."—*J. Robert Morton, vice president-corporate transportation and distribution, Combustion Engineering, Inc., Windsor, Conn.*

"Had agreement not been reached when it was, a lot of our operation would have stopped . . . As much as it would have affected our operation, we were behind the railroads 100% in their stand. It was completely without reason that one union should fail to accept changes in work rules, that were long ago outdated, when three unions already had accepted such changes. Further, it was absolutely necessary that such changes be made to enable the railroads to pay the highest wage raise in history."—*E. M. Burk, traffic manager, Wyatt Division, U.S. Industries, Inc., Houston, Texas.*

"We sincerely support the rail carriers' position in the work-rules dispute. These antiquated work rules must be changed to insure a more efficient rail industry for the future."—*R. J. Lavigne, traffic manager, Hiram Walker, Inc., Detroit, Mich.*

"Delighted that the ancient work rules were modified. Now railroads have an opportunity to run faster through trains and improve transit time and go after business that was lost to truck's because of poor service."—*Robert L. Travis, general traffic manager, S. D. Warren Co., Westbrook, Maine.*

"I do not believe the issues warranted a strike [by the union]. The offer made earlier was fair to the union and there can be no justification for insistence on inefficient and outmoded work rules. I do agree that the carriers had to insist on the changes if the railroads are to be competitive with other modes of transportation."—*W. E. Maley, manager of distribution, U.S. Borax & Chemical Corp., Los Angeles.*

"We will make every possible effort to insure that the struck lines enjoy the same percentage of our total traffic as they would have enjoyed had there been no labor stoppage."—*G. R. Hubbard, director-traffic, Simpson Timber Co., Seattle, Wash.*

"Without taking a position, pro or con, for labor or management, our company agrees with much of the shipping public that legislation is sorely needed to properly arbitrate future disputes without a disruption of transportation service. It is our opinion that the national economy is too dependent upon efficient transportation of goods and people to tolerate periodic shutdowns that penalize everyone, whether directly involved in the issues or not."—*R. C. Avery, traffic manager, Neisner Bros., Rochester, N.Y.*

"We anticipate a return to normal routings used prior to the strike. Revenue lost by diverting to trucks during the strike, however, will not be recovered by the railroads."—*N. C. Kunzmann, traffic manager, Georgia-Pacific Corp., Bellingham, Wash.*

"We shall endeavor as much as possible to compensate those railroads affected by the strike for their 'down time' by favoring them with additional tonnage."—*Harold H. Plaut, traffic manager-agricultural chemicals, International Minerals & Chemical Corp., Skokie, Ill.* ■

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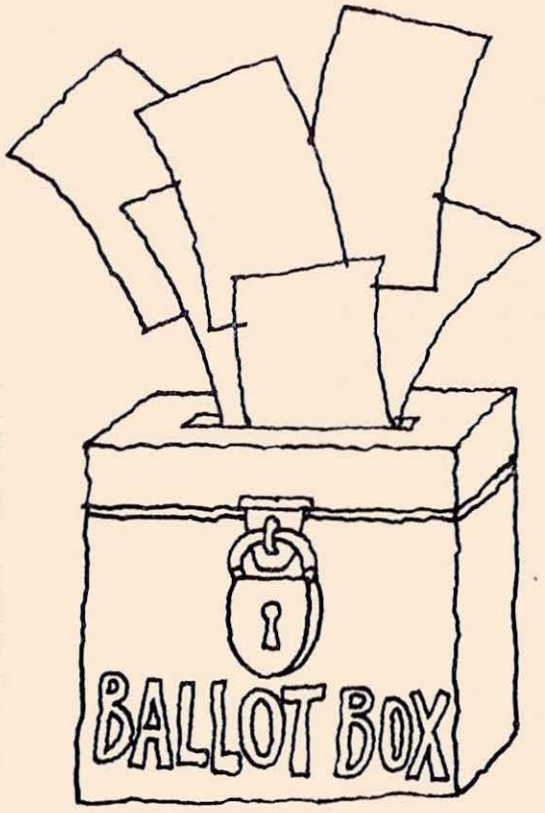

Companies select new locations for manufacturing facilities and expansions along Penn Central for solid practical reasons. Last year alone, 530 companies opened their doors on our lines.

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Our area boasts over 300 industrial parks, with 70,000 acres still available. Penn Central owns more than 18,000 acres of prime ground, suited to your relocation or expansion needs. 51% of the nation's population, and 55% of its manufacturing capacity are included in our territory.

Our industrial development team can help you select the best site location. And assist you with every problem from zoning restrictions and taxes to labor supply. Get the full story.

Write or call V. J. Floyd, Director—Industrial Development, Penn Central Transportation Company, Room 1412, Six Penn Center, Phila., Pa. 19104 (215) 594-1465; or Otto Pongrace, Director—Industrial Development, Penn Central Transportation Company, Room 1604, 466 Lexington Ave., New York, N. Y. 10017 (212) 340-3477.

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You can count on us.

Market Outlook

CARLOADINGS

Loadings of revenue freight in the week ended Aug. 14 totaled 502,939 cars, according to the Association of American Railroads. This was an increase of 57,120 cars, or 12.8%, compared with the previous week (when some railroads were still struck), and a decrease of 33,795 cars, or 6.3%, compared with the corresponding week last year.

REVENUE FREIGHT CARLOADINGS

Commodity	Aug. 14 Week	Aug. 7 Week	July 31 Week
Grain	27,465	26,180	22,765
Farm products	9,987	7,384	5,413
Metallic ores	42,638	32,829	35,357
Coal	107,480	92,452	77,085
Crushed stone, gravel & Sand	29,512	27,913	22,100
Nonmetallic minerals	10,309	8,768	6,626
Grain mill products	18,520	17,187	14,577
Food & kindred products	23,229	20,805	17,050
Primary forest products	24,094	21,688	18,167
Lumber & wood products (except furniture)	15,702	13,941	9,934
Pulp, paper & allied products	23,327	21,400	19,171
Chemicals & allied products	23,742	21,803	16,834
Petroleum products	9,329	8,532	6,923
Stone, clay & glass products	20,480	17,734	13,685
Coke	5,155	4,946	4,704
Metals & products	15,073	16,070	20,623
Motor vehicles & equipment	16,749	13,563	10,293
Waste & scrap materials	12,338	10,917	8,929
Forwarder & shipper assn. traffic	6,355	6,207	4,825
All other carloads	61,014	55,222	49,829
LCL traffic	441	452	432
Total cars loaded	502,939	445,993	385,322

CUMULATIVE TOTAL, 33 weeks	1971	1970	1969
	16,322,220	17,199,398	17,574,725
Estimated revenue ton-miles (billions) 33 weeks	473.2	483.2	479.3

PIGGYBACK LOADINGS

U.S. piggyback loadings for the week ended Aug. 7 totaled 23,139 cars (2.6% below the corresponding week last year) and 39,094 trailers or containers (up 1.9% from 1970). Cumulative volume for the first 32 weeks of 1971 is 714,744 cars (off 7.7% from last year) and 1,160,727 trailers or containers (down 7.1% from 1970). In addition to freight, 2,760 cars carrying 4,429 trailers or containers of mail and express traffic were handled piggyback. Cumulative figures for the first 32 weeks of 1971 are 98,311 cars (down 9.7% from the 1970 total) and 146,931 trailers or containers (down 13.1% from 1970).

IN CANADA

10 days ending	Tons of Revenue Freight	Cumulative Totals
July 31, 1971	6,364,860	118,467,960
July 31, 1970	6,466,568	116,909,312

FREIGHT-TRAIN CARS

● *Serviceable cars.*—Revenue freight cars in serviceable condition owned by Class I railroads on July 1 totaled 1,352,668, compared with 1,353,596 on July 1, 1970, according to the most recent AAR Car Service Division report. Estimated total ownership of all railroad- and privately-owned freight cars on July 1 (see table below) was 1,774,827 (average capacity: 67.76 tons), compared with 1,789,089 (average capacity: 66.52 tons), on July 1, 1970.

ESTIMATED OWNERSHIP—ALL REVENUE FREIGHT CARS

(July 1, 1971 vs. July 1, 1970)

		Box	Covered Hopper	Gondola	Hopper	Flat	Refg.	All Other	TOTAL
Class I	1971	530,479	134,883	185,537	390,398	75,444	64,934	49,165	1,430,840
	1970	543,522	128,577	190,356	392,015	72,048	55,003	51,365	1,432,886
RRO&C Refgs.*	1971	0	0	0	0	0	33,773	0	33,773
	1970	0	0	0	0	0	45,499	0	45,499
All Other Private	1971	1,183	39,700	2,933	2,744	52,100	16,855	170,734	286,249
	1970	1,280	36,275	2,026	2,468	53,203	15,222	175,631	286,105
Class II & S&T Cos.†	1971	9,109	812	4,208	6,904	509	1,465	958	23,965
	1970	9,744	709	4,222	6,964	534	1,457	969	24,599
GRAND TOTAL	1971	540,771	175,395	192,678	400,046	128,053	117,027	220,857	1,774,827
	1970	554,546	165,561	196,604	401,447	125,785	117,181	227,965	1,789,089

* Railroad owned and controlled refrigerator car lines.
† Class II railroads and switching and terminal companies.

● *Trailer Train.*—Ordered five 89-ft, 4-in. standard-level cars from Bethlehem, bringing to 531 the total number of new cars ordered since Jan. 1. As of July 27, TTX had 59,123 cars in service or on order.

● *Bad order is unchanged.*—Class I roads on July 1, 1971, owned 1,430,840 freight cars, 2,046 fewer than on July 1, 1970, according to AAR report summarized below. Bad order ratio was the same as last year.

	July 1, 1971	July 1, 1970	Change
Car ownership	1,430,840	1,432,886	−2,046
Waiting repair	78,172	79,290	−1,118
Repair ratio	5.5%	5.5%	0

CAPITAL EXPENDITURES

● *Soo Line.*—Directors authorized an initial 1972 equipment program with an estimated cost of about $3 million. Equipment to be acquired will include five 3,000-hp, six-axle diesel-electric units; 70 100-ton, 61-ft gondolas; and 10 cabooses. Soo said additional acquisitions may be authorized "in the light of developing shipper requirements and operating results of the company."

TRANSIT

● *New York City Transit Authority.*—Has contracted with a consultant team headed by Kaiser Engineers for a $660,000, year-long study of a transportation system "to accommodate crosstown trips over distances that are too long for walking and too short for conventional rapid transit." Working with Kaiser on the study will be the Stanford Research Institute, Alan M. Voorhees & Associates, and Rai Y. Okamoto and Associates, Inc.

● *Washington Metropolitan Area Transit Authority.*—Apparent low bidder for construction of WMATA's Farragut West Metro station (below Eye Street between 17th and 18th streets, N.W.) is Morrison-Knudson Co. of Boise, Ida. That firm's bid of $31,043,383.50 is 1% below WMATA's estimate for the job. To date the transit authority has opened 23 major construction bids for a low bid total of $285,301,811.33. Total low bids to date have been slightly more than 1% above estimates. The Metro's 98-mile regional network is now slated for completion in 1979, with initial service starting on a 4½-mile segment early in 1974.

Also, a low bid of $59,567,737 was submitted by General Railway Signal Co. for WMATA's automatic train control system. It was 24% above the authority's estimate of $47,889,637. WABCO's Union Switch & Signal Construction Co. bid $66,856,672.

SPECIAL

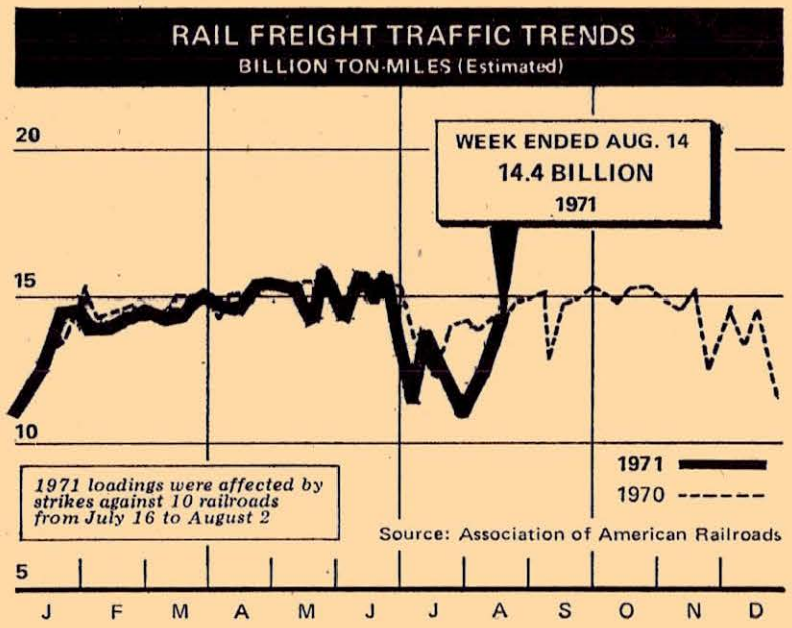
● *Pacific Car & Foundry.*—Ordered 600 refrigerator car cooling-heating systems from Carrier-Transicold Co. The equipment will be installed in cars being built for Pacific Fruit Express (RA, April 12, p. 53).

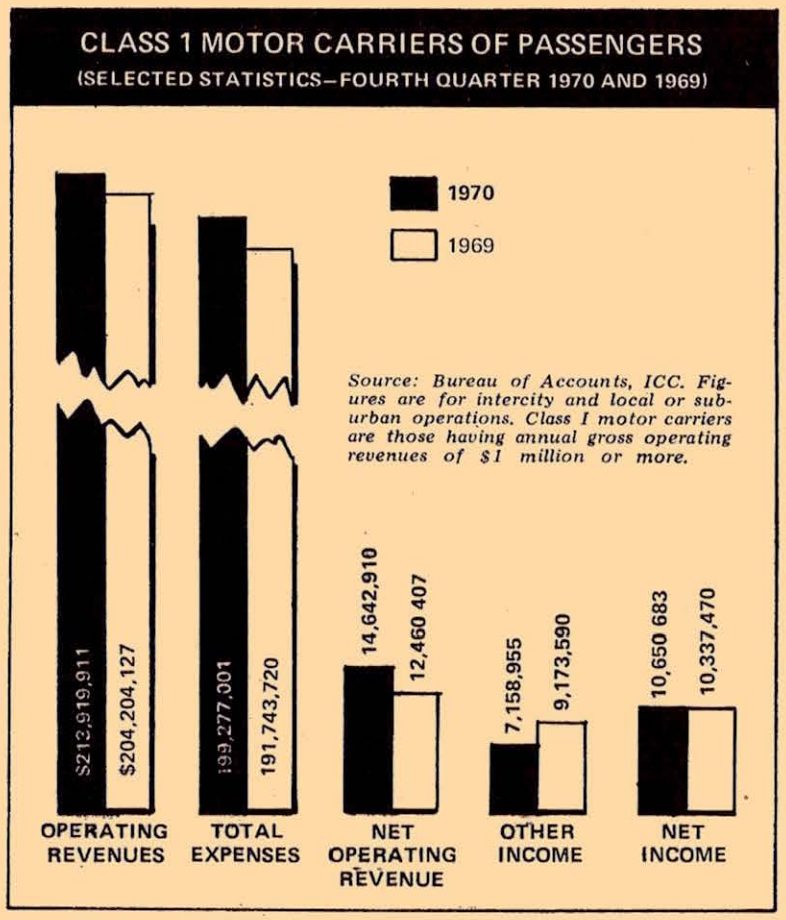
● *BART.*—Contracts totaling $300,000 have been awarded to Bunker Ramo's Amphenol Connector Division (Broadview, Ill.) to manufacture heavy-duty connectors for the first 200 cars being built for the Bay Area Rapid Transit System.

NEW FACILITIES

● *Seaboard Coast Line.*—Awarded a contract for installation of dust control facilities at its Port Boca Grande, Fla., phosphate loading elevator. Work will be done by Linder Industrial Machinery Co. at a cost of $560,000. The dust collectors will be "Mikro-Pulsaire," made by the Pulverizing Machinery Division of Slick Corp. The collectors will be capable of removing 99.9% of the dust from air which passes through the system.

● *Southern Pacific.*—Ordered digital computer-controlled equipment for a new automatic classification yard from WABCO's Signal & Communications Division at an approximate cost of $7 million. The new yard at Colton includes receiving and departure yards, is to be constructed initially with 56 bowl tracks but will have provision for expansion to 80 tracks. It will be the first classification yard utilizing tangent point retarders in a 4-point retardation layout enabling higher speeds through the switching area.





Viewpoint

"It is a time for big thinking"

It is not unusual for a trade association to purchase advertising space to promote its legislative goals; nor is it unheard of for a troubled industry to call a news conference to tell the world what it needs to stay alive.

What *is* unusual is an ad such as that which appears on page 42 of this issue of Railway Age. It is jointly signed by the presidents of the Association of American Railroads, the American Trucking Associations, and the Water Transport Association.

What has been, until now, unheard of, is a press briefing such as that announced for Sept. 2 in Washington. The announcement of this news conference itself makes news because it is signed by the p.r. chiefs of the ATA, the AAR, the WTA.

Not so long ago, any such ad, any such news conference, would very likely have had as its central purpose the sniping by one of these modes at one or both of the others.

But today, as the ATA/AAR/WTA ad suggests, the traditionally warring modes have concluded that "It is a time for big thinking."

Obviously, the three modes feel the need to impress upon all who have a stake in this country's transportation system the fact that they meant business when they agreed, a few weeks ago, upon a common legislative program.

No one has a greater stake in transportation than those who buy it. The 10,000 shippers to whom this issue of Railway Age will be sent buy most of it.

To these shippers, we commend a thoughtful reading of the message on page 42.

The achievement of the goals set forth by the railroads, the motor carriers, and the water carriers will depend to a large degree upon the extent to which transportation users actively support these goals.

Will the unions meet the challenge?

While many railroad employees have supported the industry's legislative program, in their letters to Congressmen, organized railroad labor has been less than enthusiastic. It is time, DOT Secretary John A. Volpe suggested last week, that the unions get into step—for their own well-being.

In an address before the UTU convention in Miami Beach Aug. 23, Secretary Volpe noted that the Administration hopes to have its own wide-ranging legislative proposals ready for consideration when Congress reconvenes Sept. 8. These proposals will coincide in many respects with the joint program agreed upon by the railroads, the truckers, and the water carriers.

And Volpe said this to the union delegates:

"Put very simply, railroading will not survive as a viable private enterprise without your concern and support. Abraham Lincoln once said, 'Often a limb must be amputated to save a life; but a life is never wisely given to save a limb.' If I have a message for you . . . it is that the fate of the industry lies primarily in your hands."

Critical Acclaim!

"Grand Hotel . . . lives up to its name . . . For anyone who savors the game and all its amenities, Point Clear is one grand golfing experience."
Golf Digest

If we were a Broadway show we could run a year on that review.

If we were a book we'd be a bestseller.

But we're a resort. One of the finest in the South. With three spectacular nines, 27 tricky deceptive holes. And along with the rest of Grand Hotel, they're something to rave about.

Reserve now for our
Grand Golfer's Holiday Plan
between June 15 and
December 31, 1971.

$162* Slightly higher during October.
7 days, 6 nights. Or $85.50* for 4 days, 3 nights.

Special low rates for children. Per person double occupancy incl. room, breakfasts, dinners, gratuities, unlimited free tennis, golf, swimming, pier fishing, lawn sports, nightly dinner dancing. Junior hostess for children.
European Plan available.

*55 rooms at this rate. Rates subject to change without notice.

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INDUSTRIAL TRAFFIC

E. Paul Burke has been named to the newly created postion of vice president for transportation, **Johns-Mansville Corp.** He was formerly vice chairman of the board, **Frontier Airlines.**

Robert V. Peabody, assistant director of distribution, **Borden Chemical,** a division of Borden, Inc., has been named director of distribution, succeeding **Raymond N. Rear,** retired after 44 years of service.

Fred H. Meyerhoff, assistant traffic manager, **N L Industries, Inc.** (formerly National Lead Co.), New York, has been appointed to the newly created post of traffic coordinator—rates and services, St. Louis.

Dee Gerber, assistant traffic manager, Minneapolis Division, **Coast to Coast Stores, Central Organization, Inc.,** has been promoted to traffic manager, succeeding **Elroy Goodrich,** retired.

Patrick H. Murphy has been appointed general traffic manager, **Mississippi Valley Structural Steel Co.,** St. Ann, Mo., succeeding **Harry D. Penwell,** retired after 50 years with that company.

Frank C. Atherton has been promoted to assistant director of traffic, **J. M. Huber Corp.,** Edison, N. J. **Joseph P. Kraft** has been advanced to domestic traffic manager, and **Paul W. Moyse** to assistant traffic manager.

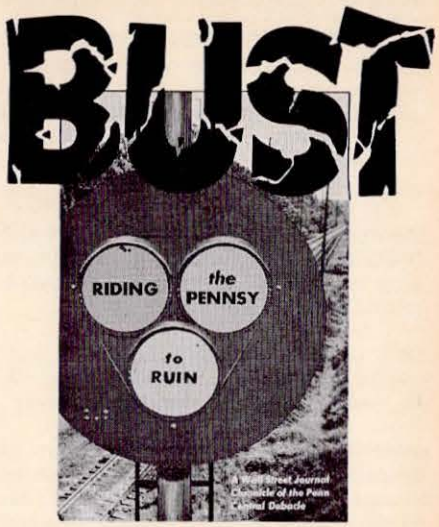
Step up your sales call frequency

and call on more people, too. Deliver your sales message to all your buying influences - both known and unknown.

...and pay less than 37¢ a call

To find out how, please turn the page.

June 22, 1970:



That was the fate of what was to be a most promising merger of two huge railroads. And now fear of a spreading financial paralysis was about all that was left as the Penn Central petitioned for reorganization under the bankruptcy act. The Wall Street Journal, the national business daily, had followed the development of the transportation giant since its birth and had a particular interest in this significant business disaster.

Now, Dow Jones Books has published RIDING THE PENNSY TO RUIN—a collection of Journal articles—as a case study of this mammoth business failure. Written between June 1970 and April 1971, these fascinating stories detail government involvement, "public" and "private" stock transactions, outmoded work rules and equipment, "lost" freight cars, and political dealings that resulted in the Pennsy's loss of more than $13 as each *second* of 1970 ticked away. A sure-to-become classic lesson in how not to do it; a case history to be examined by every student and "graduate" of the "school" of business. To order your copy use the handy coupon below. (90 pages, soft cover, $1.95)

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State..... Zip .....

Please allow four weeks for delivery.

Circle 25 on coupon page 33

People in the News

DELAWARE & HUDSON.—Thomas E. O'Brien, coal traffic manager, Albany, N.Y., promoted to assistant vice president–sales, with jurisdiction over merchandise, as well as coal and ore traffic. Abolished positions of general sales manager and coal traffic manager.

DETROIT, TOLEDO & IRONTON-ANN ARBOR.—L. W. Klenk appointed general sales manager, **DT&I,** and **R. J. Gunton,** general sales manager, **Ann Arbor.**

ERIE LACKWANNA.—M. L. Larkin, engineer of tests and chief chemist, Meadville, Pa., named chief environmental engineer.

GRAND TRUNK WESTERN.—John H. Burdakin named vice president, operations, to succeed **John D. Hayes,** retired. Mr. Burdakin was formerly general manager, northern region, **Penn Central.**

ILLINOIS CENTRAL.—Martin W. Fingerhut, general labor attorney, Law Department, named assistant vice president, Personnel Department. **Richard L. Marzullo,** director of selection and placement, named to the newly created position of director of personnel selection and development.

LEHIGH & NEW ENGLAND.—Thomas J. Smith, president, **Jersey Central,** elected president, L&NE, succeeding **Robert Frederickson.**

MISSOURI PACIFIC.—Jack N. Sanders, vice president, western district, Kansas City, Mo., promoted to assistant vice president-traffic, St. Louis, effective Sept. 1, to succeed **Ronald S. Crossman,** who retires after 47 years' service. **Clem P. Dirckx,** manager of government traffic, named to the newly created position of director-international, government and container sales, St. Louis. **George T. Burton,** formerly civilian chief of the general freight division, **Military Traffic Management and Terminal Service,** St. Louis, succeeds Mr. Dirckx.

SOUTHERN PACIFIC.—Joseph W. Murphy, assistant to vice president-traffic, named assistant vice president-traffic (administration), San Francisco. **A. G. Sanchez** named to the newly created position of assistant to regional manager, international traffic, Houston.

SUPPLY TRADE

Fred E. Carlstedt, chairman of the board and chief executive officer, **Cardwell Westinghouse Co.,** Chicago, retired June 30, after 49 years of continuous service. **Thomas A. Ormerod,** general sales manager, has been elected vice president-sales, succeeding **Harrell L. Monger,** retired after 34 years of service.

John H. Burdakin
GTW

Thomas A. Ormerod
Cardwell

David M. Day has been appointed vice president and co-manager, Railroad Advisory Department, **Shearson, Hammill & Co.,** New York. He will work closely with **Miss Isabel H. Benham,** also co-manager of the department.

Walter J. Winzen has joined the sales staff of **St. Louis Railway Supply Co.,** St. Louis, Mo.

Thomas M. Taylor and **Richard C. Schoppert** have been appointed regional marketing managers of **ACI Systems Corp.,** at Atlanta, Ga., and Chicago, respectively.

Larry L. Farris has been named general sales manager of **Ryd-A-Rail, Inc.,** division of **ISC Industries, Inc.,** at Camdenton, Mo. **Ryd-A-Rail** is the new name for the **W. T. Cox Co.**

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Circle 26 on coupon page 33

Yes, less than 37¢ a call when you tell your story in Railway Age! Figure it out:

1. Railway Age's 12-time B&W rate is only $850. per page.
2. Audited circulation is 23,117.
3. Divide 23,117 into $850. for a cost of just a shade under 37¢ per call.

Yes, you still need personal calls to clinch things, of course. But what a great job of pre-selling, and post-selling, your "calls" through Railway Age can do!

(figures are based on Rates and Circulation for Freight Traffic Issues.)

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Freight and Passenger Car Charts—$2 each

These charts are very helpful to AAR billing clerks, mechanical engineers, purchasing and stores personnel, car inspectors, write-up men, car foremen, and anyone else who needs a knowledge of car parts and their relation to each other.

The charts include a cutaway diagram of the car and a listing of important parts with arrows showing where the part is located. These charts are used in our apprentice technical training program for the carman craft.

If you are not satisfied **YOUR MONEY WILL BE REFUNDED** *if you return the charts to us within 30 days*

THE RAILWAY EDUCATIONAL BUREAU
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Please send the charts I have checked below. If I am not satisfied I will return the charts within 30 days for a full refund. I enclose a check or money order for $2.00 for each chart.

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- ☐ Covered Hopper Car (22x30 inches)
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- ☐ Passenger Car, Air conditioned, chair (18x35 inches)

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Two 1969 G.E. Model U 33 C—3,300 H.P.—210 ton diesel electric locomotives.
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5 50 ton air dump cars
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W. Arthur Cubbage—regional sales manager
Charles E. Keil—regional sales manager

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300 Mt. Lebanon Blvd.
(412) 341-0844
Ronald M. Giallonardo—regional sales manager

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Noel Page Building
6400 N. Central Expressway
(214) 361-6972
Joseph Sanders

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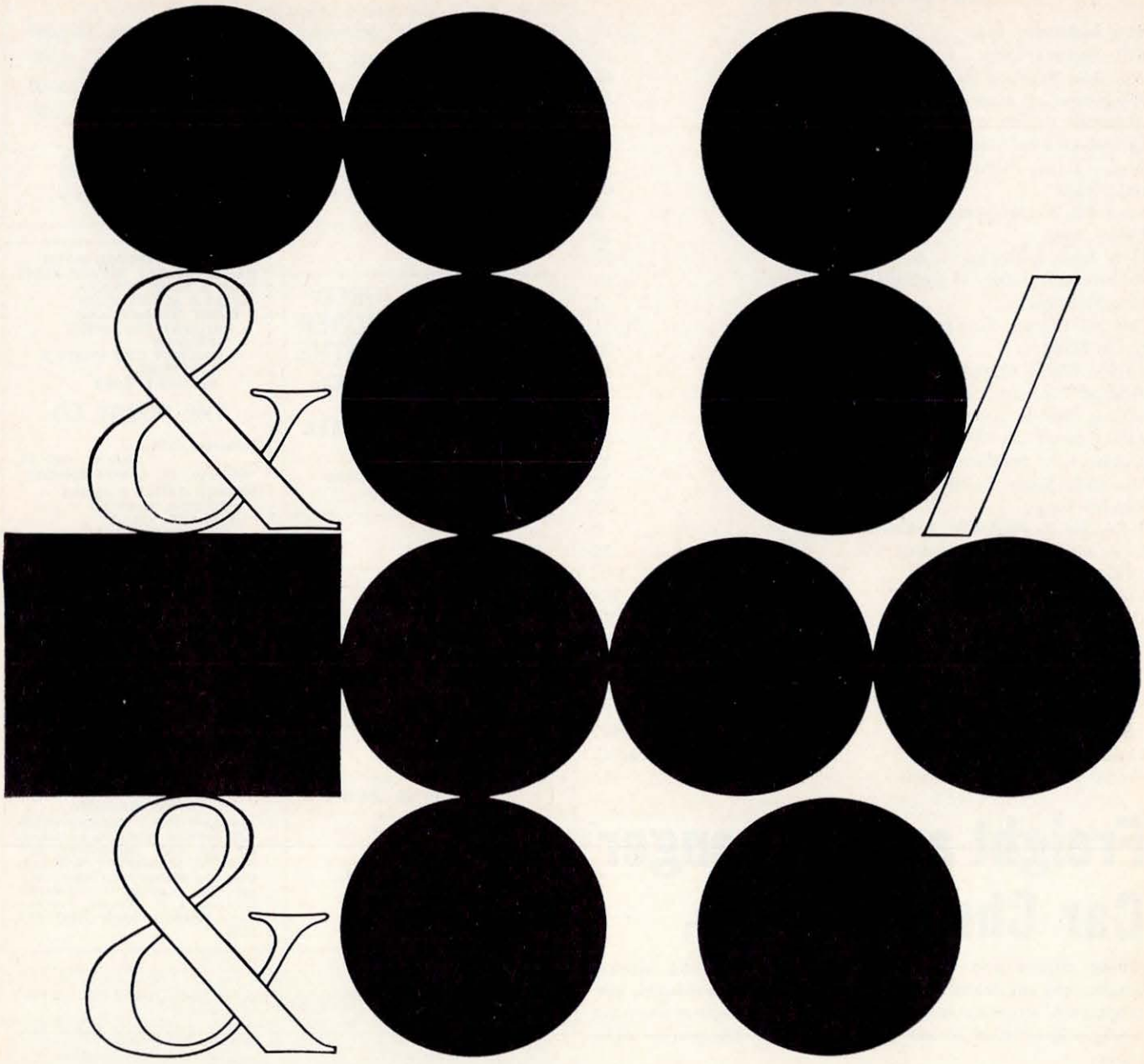
C.H. Yiu, Managing Director



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While the American Morse Code may no longer be the language of railroad telegraphers, the C&O/B&O still have a "code" of their own. It identifies a team of industrial development specialists who have—or will find—all the hard-to-get information you need for location of a new plant.

Our code is the inside story on every available acre in the 12-state industrial heartland of America, plus Ontario.

What's more, these I. D. experts will team up with our C&O/B&O industry specialists—our Market Managers—who understand your business and your special distribution needs. So you won't have to take time to teach us.

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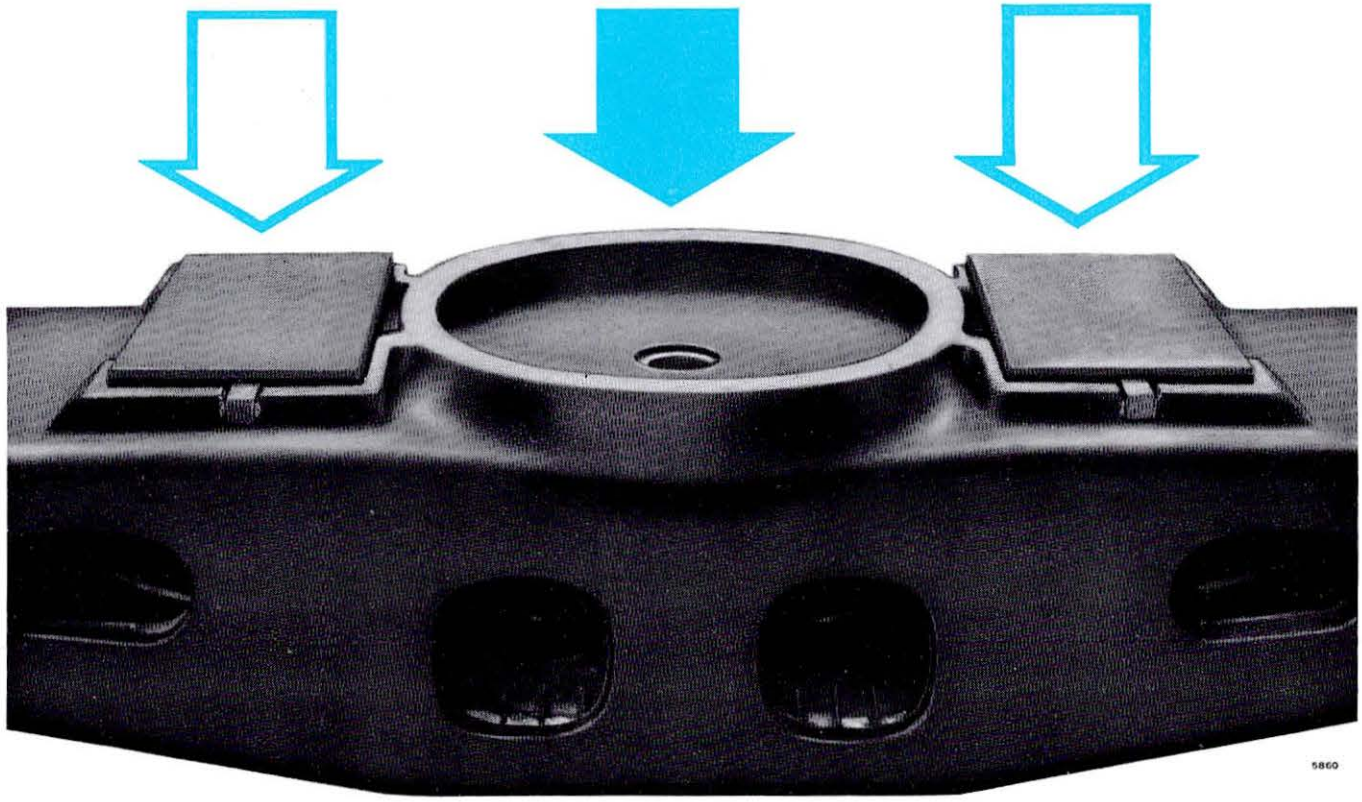
EASE THE PROFIT SQUEEZE... SPREAD THE LOAD WITH C-PEP



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C-PEP can be applied to existing bolsters, or in retainers monocast on new bolsters for lower initial cost. The system will pay for itself in maintenance savings over hundreds of thousands of load miles.

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C-PEP—A fail-safe system—by specialists in freight car stabilization.

"Talk to the man from Barber"

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STANDARD
CAR TRUCK COMPANY

CHICAGO • PHILADELPHIA • MONTREAL
CABLE: CARTRUCKS

Railroad crisis?

Or transportation crisis?

It is said that the farthest you can get from a railroad in Iowa is a dozen miles.

This is because when the railroads were used to open the territories west of the Mississippi, it was planned that no farmer would be farther from a railroad than a day's journey by horse and wagon.

That was in 1900.

Today, the Iowa farmer is no further from a railroad than 20 minutes by truck. In fact, rather than delivering to the nearest railroad, he can—and often does—continue right on to the final delivery point.

Today, trucks now carry over 21 per cent of all intercity freight traffic.

Oil that once traveled exclusively by train, now flows through pipelines, too, accounting for almost 22% of intercity freight movement. Ships and barges now carry 16% of all goods moving between cities, with airlines carrying .2% of the cargo, and growing.

Railroads were once the nation's total transportation system.

Today, they are only a part of a total system. But a very important part, carrying over 40% of the nation's freight.

Neither the Iowa farmer, nor the Pennsylvania industrialist, is bound exclusively to the railroads as a means of transporting goods.

Not only are there alternate modes of shipping, but also a newer concept in using them. Often several modes are used, with a single shipment traveling by ship and train and truck to achieve greater efficiencies in time and money.

This is what today's total transportation system is all about. It has spurred the growth of the American economy to its present strength, and the health of this transportation system is essential to its continuing growth and strength.

That is why in our total transportation system we need ships.

And we need barges.

And we need pipelines.

And we need planes.

And we need trucks.

And we need railroads.

But railroads can no longer be treated as a total transportation system in themselves, governed separately by the phantom needs of 1900.

In being required to maintain services and facilities that are no longer needed, the railroads are incurring losses that prevent updating of services to meet modern needs. Losses that are contributing to their swift destruction.

Even competitive forms of transportation support the railroads' pleas for new legislation in these and other specific areas.

Because it means much more than the survival of the railroads.

It means the survival of our total transportation system, and the future of the economy itself.

This message on behalf of Americans and their railroads appears nationally in leading newspapers, as a public service of **Pullman-Standard,** America's leading builder of rail cars. *Reprints* are available by writing Pullman-Standard Division, Pullman Incorporated, 200 South Michigan Avenue, Chicago, Illinois 60604.